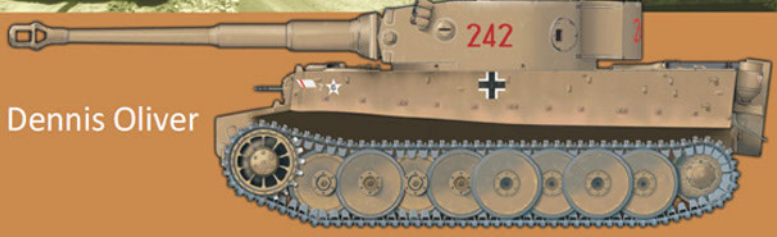
TIGER I

TANK CRAFT

GERMAN ARMY HEAVY TANK
SOUTHERN FRONT
NORTH AFRICA, SICILY AND ITALY 1942-1945



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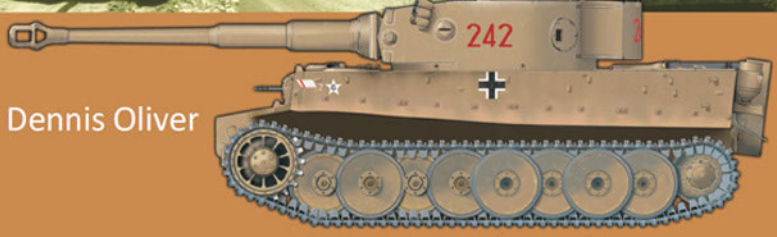

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At top, a Tamiya 1/35 scale Tiger I built and painted by Singaporean modeller John Tham. Centre, from left to right. A Tiger I of 1.Kompanie, schwere Panzer-Abteilung 504 photographed in Tunisia. A tank of 2.Kompanie, schwere Panzer-Abteilung 504 photographed in Sicily. A Tiger I of schwere Panzer-Kompanie Meyer seen here in Italy. All these vehicles are shown and discussed in the main text and illustrations. A Tiger I of 2. Kompanie, schwere Panzer-Abteilung 504.

TankCraft 10

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NORTH AFRICA, SICILY AND ITALY 1942-1945

Dennis Oliver

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Front cover. At top, a Tamiya 1/35 scaie Tiger I buiit and painted by Singaporean modeiier John Tham. Centre, from ieft to right. A Tiger i of 1.Kompanie, schwere Panzer-Abteiiung 504 photographed in Tunisia. A tank of 2.Kompanie, schwere Panzer-Abteiiung 504 photographed in Sicily. A Tiger I of schwere Panzer-Kompanie Meyer seen here in Italy. All these vehicles are shown and discussed in the main text and illustrations. A Tiger I of 2. Kompanie, schwere Panzer-Abteiiung 504.

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INTRODUCTION

Although much has been made of the Wehrmacht's first encounter with the Soviet T-34, and the realisation that the Panzers now faced an enemy with at least comparable mobility and firepower, the concept of a heavy breakthrough tank, or Durchbruchswagen, was first proposed as early as 1937 when the firm of Henschel und Sohn of Kassel was asked to design a heavy vehicle that would eventually replace the Pzkpfw IV medium tank. Porsche, MAN and Daimler-Benz also received contracts to develop experimental vehicles but the easy victories of 1939 and 1940 meant that most designs never progressed beyond the experimental stage.

The invasion of Russia in June 1941 produced some spectacular successes, but for the first time the Germans faced armoured vehicles against which the guns of their tanks were largely impotent (1). The Führer's solution was to demand that development continue on the original specification, while work would begin immediately on a still heavier vehicle with armour that would be impervious to any anti-tank gun then in use, armed with a weapon capable of destroying any enemy tank out to a range of 1,500 metres. Within a year both Henschel and Porsche had developed prototypes that were demonstrated to Hitler on 20 April 1942 and although neither was particularly impressive, both Hitler and Speer, his armaments minister, were swayed by the greater manoeuverability of the Henschel prototype and it was ordered into production as the Panzerkampfwagen VIH (8.8cm) SdKfz 182 ausfuhrung HI (2). In keeping with the breakthrough concept, it was originally intended that company sized units of twenty vehicles would be attached to Panzer divisions and employed as spearhead formations. These companies were to be made up of Tigers and light tanks which would undertake duties for which the heavy Tigers were unsuitable (3).

This idea was, however, quickly dropped and it was decided that the companies would be expanded to independent battalions. The first of these units was formed in mid-1942 and the early table of organisation is shown on page 50. Further reorganisations followed and these are discussed on pages 52 and 54.

On the open plains of Byelorussia and the Ukraine these vehicles were without equal, destroying Soviet tanks at ranges of up to 2,000 metres. However, in the rugged terrain of Tunisia and Sicily, with few if any recovery facilities, the mechanically fragile Tigers were at a decided disadvantage (4). In Italy, where the horizon was often a few hundred metres away, the advantages conferred by their 8.8cm guns were greatly reduced. Added to this the tanks were rarely employed in battalion, or even company, sized operations. It is hardly surprising that no Tiger II units were sent to the Southern Front.

An early production Tiger I of 2. Kompanie, schwere Panzer-Abteilung 504 disabled and abandoned near Ponte Dirillo in Sicily. This tank is one of eight vehicles delivered to the company in May and June 1943 and which could be distinguished by the spare tracks on the turret sides. These tanks are also shown and discussed on page 21 of the Camouflage and Markings section of this book.

Notes

1. Indeed, the armour of the heavy KV tanks could only be penetrated by the 8.8cm gun and that they were employed haphazardly and in small groups probably saved many German tank units.

2. The Henschel design team later admitted that they managed to convince Speer, and through him Hitler, that manoeuvrability was the most important aspect of the design brief.

3. Many field commanders considered it a mistake when the light tanks were eventually dropped from the battalion table of organisation.

4. Of the forty-nine Tigers lost in the Tunisian and Sicilian campaigns as few as five were victims of enemy action.

THE TUNISIAN BRIDGEHEAD

THE TUNISIAN BRIDGEHEAD. 1942-1943.

In 1942 the north-west coast of Africa was made up the French protectorates of Morocco and Tunisia and, sandwiched between these two, Algeria which was considered part of metropolitan France. Although the area was administered by the Vichy government, German and Italian Armistice Commissions had been based in French North Africa since 1940 and interfered in almost every aspect of governance. However, there was no German military presence in Morocco, Algeria or Tunisia and the closest Axis formation was an Italian infantry division based in Tripolitania near the Tunisian frontier. When the Allied landings took place in early November 1942 all Axis ground troops in North Africa, including Rommel's troops fighting in Libya, were officially under the control of the Italian Commando Supremo based in Rome. Generalfeldmarschall Kesselring as Oberbefehlshaber Sud exerted considerable influence over operations, largely through his good relations with the Italians, although his authority only extended to Luftwaffe units based in the Mediterranean.

The rapid build-up of German forces in Tunisia was aided by the ambivalence of the French command which refused to deny the use of their airfields to either side and by 9 November, just 24 hours after the initial landings, Allied intelligence was reporting the arrival of forty Luftwaffe transports at Tunis with a further sixty landing on the following day. By the end of the month two Italian divisions and three German divisions, including the tanks of 10.Panzer-Division, had been flown in or ferried from Sicily. The most important events of the campaign, as they relate to the Panzer units involved, are set out below.

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2 November 1942. After a number of diversionary attacks, the British launch Operation Supercharge, a major assault on the Axis positions around El Alamein in Egypt. That night, following a failed counterattack, Generalfeldmarshall Rommel requests permission from Hitler to fall back. The Führer forbids any retreat

by Panzerarmee Afrika.

4 November 1942. Rommel ignores Hitler's orders and prepares for a general withdrawal to the Libyan border, leaving a strong antitank screen as a rearguard.

6 November 1942. British reconnaissance units reach the area south of Mersa Matruh, over 150 kilometres west of El Alamein.

7 November 1942. In the early morning, tanks of Panzer-Regiment 5 hold off British armoured units as the withdrawal continues.

8 November 1942. Allied forces land in Morocco and Algeria as part of Operation Torch. The Germans are quick to react and within 24 hours, men and material are being ferried and flown into Tunisia from Sicily to form a bridgehead and cover the withdrawal of Panzerarmee Afrika. On the same day Rommel's troops reach Sidi Barrani, 40 kilometres from the Libyan frontier.

10 November 1942. Allied forces in Algeria cross the Tunisian frontier. The first elements of schwere Panzer-Abteilung 501 leave Truppenübungsplatz Ohrdruf in German for Italy.

11 November 1942. The last Axis troops leave Egypt.

15 November 1942. The Germans abandon Derna in Libya, while in the west British troops capture Tabarka in Tunisia and the Americans occupy the airfield at Youks-les-Bains in Algeria

unopposed.

17 November 1942. At Djebel Abiod in Tunisia, the Allied forces in the west come into contact with German troops for the first time as the paratroopers of Kampfgruppe Witzig bring the British advance to a halt. That afternoon Witzig's men are reinforced by the tanks of 10.Panzer-Division.

19 November 1942. The Germans brush aside the French units defending Medjez al Bab in Tunisia.

20 November 1942. In Libya, British troops capture Benghazi. The tanks of 1.Kompanie, schwere Panzer-Abteilung 501 are loaded onto ferries for transport to North Africa.

21 November 1942. Kampfgruppe Witzig with a number of tanks from 10.Panzer-Division go over to the attack at Diebel Abiod but are beaten back by heavy artillery fire.

23 November 1942. The Axis units in Libya abandon Aidabiya. The first Tigers of schwere panzer-Abteilung 501 arrivein Tunisia.

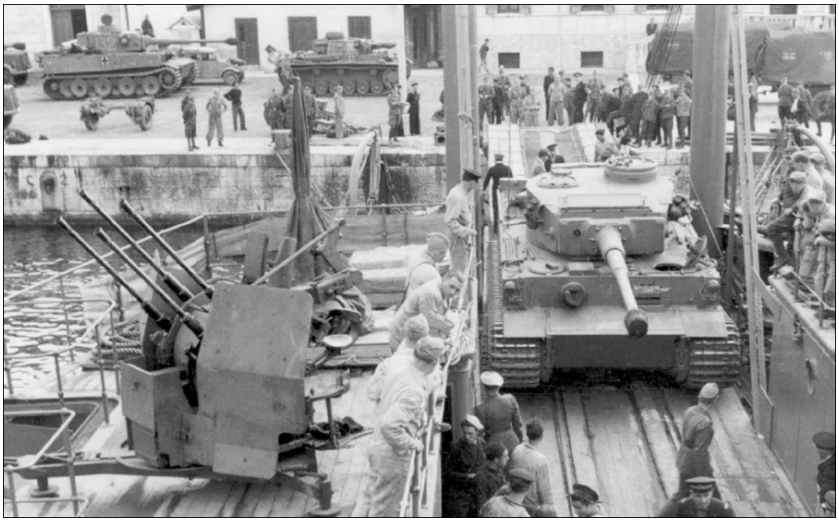
26 November 1942. An opportunistic Allied raid on the airfield at Djedeida convinces the German command that their defences have been broken and many units follow the order to retreat before it can be rescinded, allowing Medjez al Bab to fall into enemy hands.

28 November 1942. A combined Allied force attempts to capture

Djedeida but is beaten back with heavy losses.

1 December 1942. A counterattack by the tanks of 10.Panzer-Division pushes the British back from the area around Djedeida. The commander of 1.Kompanie, schwere Panzer-Abteilung 501, Hauptmann Nikolei von Nolde, is killed while leading his company. Later that day Nolde's replacement, Hauptmann Eberhard Deichmann, dies after being hit by a sniper's bullet.

Tiger number 142 of schwere Panzer-Abteilung 501 being loaded onto a Marinefährprahm Type C barge for shipment to Tunisia. Note that the tank's width necessitated the removal of the side mudguards and the outer row of roadwheels. This tank is also shown and discussed on page 17 of the Camouflage and Markings section.



Vehicles of schwere Panzer-Abteilung, including two Tigers and a Pzkw III ausf N tank, photographed in Reggio being loaded for transportation to North Africa. Although it is difficult to be certain this vessel may be one of several Italian rail ferries that were converted to carry tanks. The tank in the foreground is Tiger number 112 of the battalion's first company.

4 December 1942. The Germans capture Terbourba in Tunisia, claiming the destruction of 134 enemy tanks.

11 December 1942. The British launch an offensive toward Marsa al Brega and El Agheila in Libya in an effort to trap the retreating Panzerarmee Afrika.

13 December 1942. British troops near El Agheila are brought to a halt by the last tanks of the Italian Centauro Division.

18 December 1942. Axis forces in Libya continue their withdrawal, infiltrating the Allied lines under the cover of darkness and engaging In a brieffirefight at Nawfaliya on the coast.

22 December 1942. A joint British-US offensive in Tunisia near Maknassy is driven back to its start point by the evening of the following day.

8 January 1943. Due to heavy losses at sea, convoys between Italy and Tripoli are suspended, further exacerbating the Axis supply difficulties.

18 January 1943. Elements of Gebirgsjädger-Reglment 756, supported by four Tiger tanks, seize the area east of Djebel Mansour, east of the Siliana to Bou Aradah road and secure a crossing of Lake Kebirin Tunisia.

23 January 1943. The British 8th Army capture Tripoli, the capital of Libya.

30 January 1943. The French garrison at Paid Pass in Tunisia surrenders after a determined German assault.

4 February 1943. British units cross the Libyan border into Tunisia.

14 February 1943. The Germans launch an offensive near the

town of Sidi Bouzid, between Sfax and Kasserine in Tunisia. An American counterattack is beaten back by the Tigers of schwere Panzer-Abteilung 501.

15 February 1943. Further American counterattacks around Sid! Bouzid are repelled with heavy losses and on the following day the Germans enter the town and advance to Sbeitla.

16 February 1943. The commander of 1.Kompanie, schwere Panzer-Abteilung 501, Oberleutnant Schmidt-Bornagius, is killed while leading an attack near the Sidi Bouzid crossing.

19 February 1943. The remaining tanks of Panzerarmee Afrika, retreating from the east, launch a surprise attack at Kasserine in Tunisia, overwhelming the American defenders.

20 February 1943. Although the Kasserine attack is successful, an assault at Sbiba to the north runs into strong resistance.

21 February 1943. Axis units are able to push the Americans back toward Thala, potentially leaving the road to the Algerian border open.

22 February 1943. An Allied counterattack near Thala manages to halt the Germans.

23 February 1943. Heeresgruppe Afrika, under Generalfeldmarschall Erwin Rommel, is created to command all

Axis ground forces in North Africa.

26 February 1943. As the fighting at Kasserine peters out, the Germans launch Operation Ochsenkopf, aimed primarily at gaining control of the area between the British 1st Army and Rommel's Heeresgruppe Afrika, known to the Allies as Hunt's Gap. Although Initially successful, the German units are forced to withdraw Into northern Tunisia after suffering heavy losses including seven Tigers of schwere Panzer-Abteilung 501. In addition the battalion commander, his adjutant, and the commanders of both 1.Kompanie and the light company are all wounded.

6 March 1943. In an effort to delay the British attack on the Mareth Line in southern Tunisia, Heeresgruppe Afrika launches a pre-emptive strike codenamed Operation Capri. By the end of the first day Rommel concludes that his forces are too weak and withdraws towards the north. Heavy rain over the nextfew days hampers the British pursuit.

9 March 1943. Generaloberst Hans-Jurgen von Arnim takes command of Heeresgruppe Afrika when Rommel returns to Germany.

12 March 1943. The first tanks ofschwere Panzer-Abteilung 504 are unloaded in Tunis.

17 March 1943. US troops capture Gafsa in central Tunisia, north of the Chott DJerid lake. On the following day El Guettar, 20 kilometres to the south-east, falls to the Allies.

19 March 1943. The British launch a major assault against the Mareth Line and penetrate the German defences near Al Zar At on the coast.

20 March 1943. British units make further breakthroughs along the Mareth Line in southern Tunisia. To the north, the Tigers ofschwere Panzer-Abteilung 504 go into action for the first time near Maknassy claiming the destruction of thirty-five Allied tanks in a single action.

21 March 1943. New Zealand units bypass the Mareth Line defences in Tunisia and force a passage through Wilder's Gap to the west, taking the German defenders on the DJebel Tebaga by surprise.

22 March 1943. A counterattack mounted by 15. Panzer-Division recaptures much of the ground lost to the British at Mareth.

23 March 1943. An assault by the tanks of 10.Panzer-Division near El Guettar In Tunisia is repulsed by concentrated anti-tankfire.

26 March 1943. Late In the evening, as part of Operation Supercharge II, British armoured units pour through the gap in the Mareth defences created on the previous day. Although 15.Panzer-Division makes a determined counterattack the Germans are forced back to Wadi Akarit.

27 March 1943. The tanks of 15.Panzer-Division stop the British advance in front of Al Hammah but the New Zealanders control

the area to the south of the town.

31 March 1943. In northern Tunisia British troops occupy Cap Serrat on the Tunisian coast. The Italian garrison on Hill 369 near El Guettar holds out against several American attempts to take the position. German units in southern Tunisia withdraw into hastily prepared defences at Wadi Akarit.

3 April 1943. US Army units finally capture Hill 369.

Another photograph of Tiger 112, depicted on the previous page, taken much later in the campaign. When the battalion's remaining tanks were absorbed by Panzer-Regiment 7 this vehicle was re-numbered as 724 and a part of the new number is just visible on the turret side. Note the

kill rings on the barrel and the very large Balkenkreuz on the hull side. This tank is also shown in the Camouflage and Markings section on page 18.

The first Tiger battalions were organised with a mix of Tigers and these Pzkpfw Hi ausf N tanks armed with a short-barrelled 7.5cm gun. In October 1942, shortly before the first tanks ofschwere Panzer-Abteilung 501 left for North Africa, the battalion reported that twenty-four of these vehicles were on hand. Note the battalion's unit insignia just below the turret number.

6 April 1943. German and Italian units at Wadi Akarit begin falling back towards Enfidah as British 8th Army units start to make contact with American units. Similarly, the German

defenders around El Guettar withdraw towards the north.

7 April 1943. British and American troops linked up on the El Guettar-Gabes road.

9 April 1943. British troops capture Al Maharas and on the following day advance to Sfax, which has been abandoned by the Germans. 11 April 1943. Allied troops take Kairouan on the road to Tunis and on the next day capture Sousse on the coast.

19 April 1943. Tiger 131 ofschwere Panzer-Abteilung 504 is abandoned by its crew after supporting an attack by Fallschirmjäger-Regiment 5 near Djebel el Djahfa. The tank is later salvaged by the British.

20 April 1943. British troops capture the airfield at Enfidah although German troops hold out in the surrounding area for some time. On the following day New Zealand troops capture the village of Takrouna Just north of Enfidha.

22 April 1943. A concerted Allied effort to defeat the remaining Axis forces in Tunisia begins but the stubborn German defence allows the Luftwaffe be begin the evacuation of Axis units In Tunisia.

26 April 1943. The remaining Tigers ofschwere Panzer-Abteilung 504 destroy more than twenty Allied tanks in a defensive action along the Oued Medjerda, east of the Tunis to Bizerte road.

29 April 1943. The Germans fall back to the area west of Bizerte while two Italian naval infantry regiments act as a rearguard.

3 May 1943. US troops capture Mateur south of Lake Ichkeul. The fighting around Medjez al Bab continues.

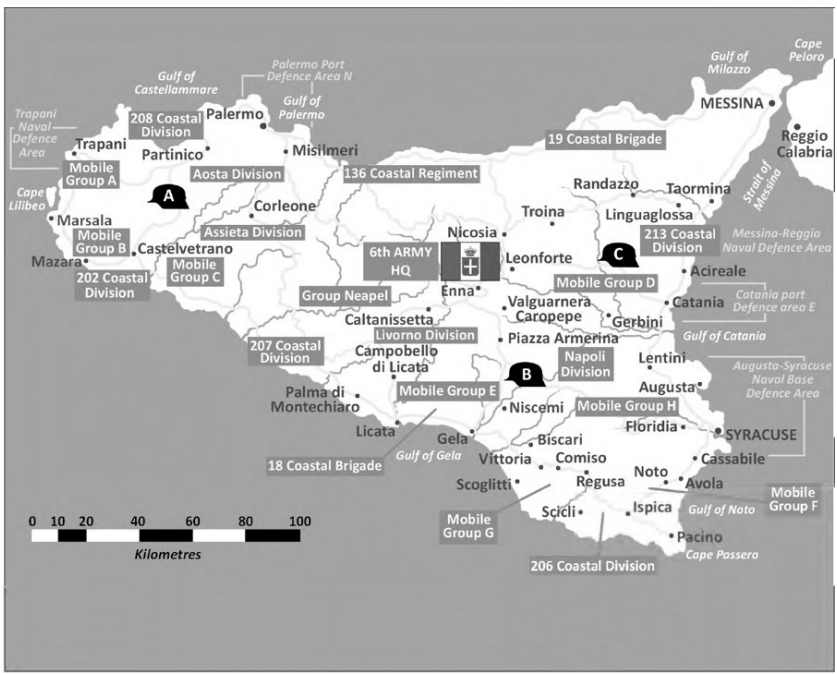
4 May 1943. The Luftwaffe evacuation is completed.

6 May 1943. British troops capture the city of Tunis while on the following day the Americans enter Bizerte unopposed, in the fighting along the northern coast 15.Panzer-Division is almost completely destroyed. In a battle south of Tunis the Tigers ofschwere Panzer-Abteilung claim to have knocked out ninety enemy tanks for the loss of one Tiger. An Allied naval blockade seals off Tunisia from the sea.

13 May 1943. Pushed into the Cap Bon peninsula, the remaining Axis troops surrender after firing off the last of their ammunition and destroying their equipment.

THE DEFENCE OF SICILY

THE DEFENCE OF SICILY. AUGUST 1943.



The disposition of Axis units in Sicily at midnight on 10 July 1943. All the formations shown here are Italian with the exception of A) 15.Panzergrenadier-Division. B) Panzer-Division Hermann Goring, with the Tiger tanks of schwere Panzer-Abteilung 504. C) Kampfgruppe Schmalz, containing a number of Sturmgeschutz III assault guns, an infantry battalion and a company of combat engineers of the Hermann Goring division and parts of Panzergrenadier-Regiment 115

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Until XIV.Panzerkorps headquarters could land in Sicily the German formations stationed on the island were, officially at least, under the control of 6th Italian Army commanded by General Alfredo Guzzoni. In reality the German divisional commanders deferred to Generalleutnant Fridolin von Senger und Etterlin, the German liaison officer at 6th Army headquarters, in all matters and he in turn reported directly to Generalfeldmarschall Kesselring in Rome. Although Kesselring's authority was limited to the units of the Luftwaffe operating in the Mediterranean, his insistence on von Senger's appointment to Guzzoni's headquarters was an obvious step towards gaining operational control over the German units preparing to defend Sicily. In any event, with the arrival of Generalleutnant Hube and the staff of XIV.Panzerkorps on 16 July, Guzzoni ceded to him control of all areas where German units were fighting which of course also meant effective control of any Italian Army units operating in those areas.

▪

10 July 1943. Before dawn. Allied airborne troops land along the southern coast of Sicily. They are followed later in the day by an amphibious assault.

11 July 1943. As the British enter Syracuse, a Kampfgruppe from Panzer-Division Hermann Goring overruns US Army units at Ponte Dirillo, between Acate and Gela, and almost breaks the Allied line. The division's commander, Generalmajor Paul Conrath, personally leads an assault on Piano Lupo where his tanks are able to bring the Allied landing craft underfire.

12 July 1943. Elements of Fallschirmjager-Regiment 3 parachute into Sicily and are used to reinforce Panzer-Division Hermann Goring and Kampfgruppe Schmalz. The British capture Augusta and its harbourfacilities intact.

13 July 1943. British troops take Ragusa, 10 kilometres from the coast and the Primosole Bridge over the SImeto river, which they manage to hold despite several German attempts to push them back.

14 July 1943. US troops capture Niscemi and the airfield at Biscari while British units capture Vizzini. However, a British attack towards Ponte del Malati, north of Lentini, is held up by a single Tiger of schwere Panzer-Abteilung 504. In anticipation of an eventual withdrawal the Germans commence work on the so-called Messsina Flak Corridor.

15 July 1943. American units take the ports of Agrigento and Porto Empedocle.

16 July 1943. After extensive bombardments the Allies capture the towns of Caltagirone and Agrigento and finally secure the Primosole Bridge. Generalleutnant Hans-Valentin Hube arrives In Sicily to take command of all areas where German troops are operating.

18 July 1943. The towns of Valguarnerna and Caltanisettafall to the Allies as British units close on Catania.

19 July 1943. Held up by the defences south of Catania the British attempt to bypass the town and take an inland route to Messina.

20 July 1943. In a single day the towns of Sciacca, Menfi, Santo

Stefano Quisquina and Enna are lost. Canadian units reach Leonforte while the British bring the airfield at Sferro underfire. On this day Italian troops begin to surrender to US troops en masse.

21 July 1943. The Canadians take Leonforte while the Americans capture Alimena, Corleone, Valledolmo, San Margherita and Castelvetrano. Despite these territorial gains German personnel losses are relatively light.

22 July 1943. Tanks of the US 2nd Armored Division enter Palermo.

25 July 1943. On the orders of the Fascist Grand Council and King Vittorio Emanuele III, Mussolini is arrested. The German commanders in Sicily, on hearing the news, begin immediate preparations to disarm the Italian units on the island.

26 July 1943. The new Italian government in Rome, led by Marshal Badoglio, secretly approaches the Allies with an offer of surrender Badoglio's first action as head of state is to dissolve the Fascist Party, an action which can hardly have reassured the Germans.

27 July 1943. As the fighting continues in Sicily Oberbefehlshaber Sud, Generalfeldmarschall Albert Kesselring, orders Generalleutnant Hube to prepare for an evacuation through the port of Messina codenamed Operation Lehrgang.

3 August 1943. Italian troops begin leaving Sicily.

4 August 1943. German units are able to hold up the American advance at Troina but abandon the town on the following day when the British capture of Catania threatens to cut them off.

8 August 1943. Allied troops land near Sant'Agata li Battiati on the east coast. Under cover of darkness, the first German units are evacuatedfrom Sicily.

13 August 1943. The German Flak umbrella over Messina proves so successful that daylight evacuations begin.

17 August 1943. Allied units enter Messina as the last German soldiers embark for the mainland. The only Tiger to survive the fighting, tank number222 of schwere Panzer-Abteilung 504, commanded by Leutnant Steuber, is ferried to Reggio Calabria.

An early production Tiger tank of schwere Panzer-Abteilung 504 disembarking at Messina. Note the outer row of roadwheels stacked on the rear deck behind the turret. The small white Panzer rhomboid marking commonly seen on the tanks of this battalion is just visible on the hull side towards the front. At right: Said to have been photographed outside Palermo in Sicily this early production Tiger I of 2.Kompanie, schwere Panzer-Abteilung 504 is also shown and discussed on page 20 of this book. Note the narrow transportation tracks, which can also be seen in the image shown above, and the wooden block between the centre roadwheels.

Other photographs from this series confirm that this tank is Tiger number 211 of schwere Panzer-Abteilung 504 abandoned near Niscemi, south of Caltagirone in Sicily. Commanded by Leutnant Herbert Heim, who led the company after Oberleutnant Hummel was wounded, this vehicie was unabie to be moved and was subsequently destroyed by its crew on 13 July 1943. This tank is also shown and discussed on page 20 of the Camouflage and Markings section.

This eariy production Tiger I ofschwere Panzer-Abteilung 504 was photogrpahed on 11 July 1943 near the Ponte Dirillo between Geia and Vittoria in Sicily on 11 July. The presence of the towing cabie wouid indicate that some attempt was made to recover this tank and indeed two Tigers were abandoned in this generai area on 11 July when they couid not be removed to safety.

THE ITALIAN CAMPAIGN

THE ITALIAN CAMPAIGN. 1943-1945.

The main map shows Italy north of Salerno, which was the site of the joint British and American assault of 9 September 1943. The successive defensive lines, beginning with the Volturno Line north of Naples, are shown as semi-broken lines and in most cases they are referred to by

their anglicised names. Note that the Gothic Line, the scene of some of the bitterest fighting of the campaign, is actually made up of two distinct defensive lines named Green I and Green II. The smaller map at left shows the area south of Salerno and the Calabrian coast where the British and Canadian landings took place from 3 September 1943. In northern Italy the OZAK (Operationszone Adriatisches Kustenland) and OZAV (Operationszone Alpenvorland) were German military zones set up after the Italian surrender. The Italian Social Republic (RSI) was created on 23 September 1943 with Mussolini at its head and was nominally in control of the area north of Cassino. Its troops, however, fought under German command and from late November 1943 the defence of Italy was coordinated by the commander of Heeresgruppe C under the newly-created Oberbefehlshaber Sudwest with Generalfeldmarschall Kesselring filling both roles.

▪

When the Allies crossed the Straits of Messina and landed along the Calabrian coast on 3 September 1943, German units stationed in Italy were technically under the command of the Commando Supremo, the Italian high command, as they had been at the beginning of the fighting in Sicily. Any confusion was, however, laid to rest when the Italian government announced its surrender on 8 September and the Germans quickly moved to disarm their former allies. The main purpose of the landings in Calabria had been to distract the attention of the German commanders while another landing took place further north. However, they were not to be so easily deceived and Generalfeldmarschall Kesselring, who had been appointed to command all German military units in the Mediterranean, held back LXXVI.Panzerkorps, his mobile reserve, correctly predicting that the main Allied effort would come further north, at Salerno or Naples. The British and Canadians in Calabria would be held up by a single regiment, battling their way north as the Germans destroyed the roads and bridges behind them, falling back to the next defensive position. The struggle in Italy would conform to this pattern until the end of the war.

▪

3 September 1943. British and Canadian troops land at Reggio Calabria against almost no opposition as the new Italian government signs a secret armistice with the Allies. Generalfeldmarschall Kesselring correctly predicts that the main landing will be made at Salerno, south of Naples.

5 September 1943. British units advance inland and capture Santo Stefano.

6 September 1943. German units of LXXVI. Panzerkorps begin falling back toward Castrovillari in anticipation of a landing at Salerno.

7 September 1943. Kampfgruppe Kruger, made up from Panzergrenadier-Regiment 71 and parts of Panzer-Aufklärungs-Abteilung 129, both from 29.Panzergrenadler-Division, holds up the British and Canadian advance.

8 September 1943. The Italian governmentformally announces the country's unconditional surrender. German units move immediately to take control of the Italian occupation zones in the Balkans and southern France and to disarm Italian forces in Italy.

9 September 1943. Allied troops land at Salerno south of Naples. Within hours the tanks of 16. Panzer-Division conduct a counterattack which is only beaten back by naval gunfire. A number of clashes take place between Italian civilians and German troops, most notably in Naples.

10 September 1943. German Fallschirmjäger, supported by the

armour of 26. Panzer-Division and 3.Panzergrenadler-Division, complete the occupation of Rome and the surrounding area.

11 September 1943. To the south the British secure Brindisi and Bari.

12 September 1943. Inexplicably the British advance is halted for 48 hours. At Salerno the Germans continue their counterattacks against the Allied position, pushing US units back toward the beach and re-capturing Altavilla on the northern edge of the perimeter. Fearing the worse. Allied commanders begin to prepare evacuation plans.

Photographed just north of the village of Brenner in Austria near the Italian border these early production Tigers are two of the tanks of schwere Panzer-Kompanie Meyer. These vehicles travelled as far 05

Innsbruck by rail, some 30 kilometres north of Brenner, suggesting that this image may have been taken on 1 August 1943. The tank in the foreground is almost certainly the Tiger commanded by Leutnant Meyer.

Photographed at Cori, a small town east of Rome, on 31 May 1944 this tank is oneof seven Tigers destroyed here by their own crews due to a lack of fuel. Just visible is the insulator for the radio aerial on the turret side towards the front identifying this as one of the 3.Kompanie tanks equipped to control the Borgward BIV demolition vehicles.

13 September 1943. An assault by elements of 16.Panzer-Division and 29.Panzergrenadier-Division at Salerno almost reaches the Invasion beaches.

14 September 1943. American paratroopers are dropped behind the German lines In an attempt to relieve the pressure on Salerno. Although the Germans continue to attack the beachheads, naval gunfire and aerial bombardment give the Allies a decisive advantage.

17 September 1943. British units link up with US troops near Salerno. Generalfeldmarschall Kesselring orders the units around Salerno to break off the counteroffensive and form a defensive line. Hitler, influenced by Rommel, informs Kesselring that the real defence of Italy will take place north of Rome.

23 September 1943. The area commander of Naples, Oberst Walter Scholl, orders the complete evacuation of the city, sparking widespread demonstrations which quickly develop into armed insurrection.

27 September 1943. British units capture the large airfield complex near Foggia on the east coast.

28 September 1943. US Army troops capture Avellino as the fighting within Naples intensifies.

29 September 1943. As Allied troops enter Pompeii, less than 20 kilometres from Naples, Oberst Scholl enters into negotiations with the Italian resistance fighters.

30 September 1943. German troops begin evacuating Naples while the fighting continues.

1 October 1943. The first Allied troops enter Naples to find Italian resistance fighters in control of the city. The city's port facilities, and hence its strategic importance, have been comprehensively destroyed by the Germans.

3 October 1943. British troops cross the Biferno River near Termoli and set up defensive positions. Within 24 hours the bridgehead is under attack by the tanks of 16. Panzer-Division.

5 October 1943. A further assault by 16.Panzer-Division at the Biferno bridgehead is only repulsed by the timely arrival of Canadian and British tanks.

6 October 1943. The Americans capture Capua and Caserta as another unsuccessful attempt is made by 16.Panzer-Division to destroy the Biferno bridgehead.

7 October 1943. American troops reach the Volturno River but come up against the strong German defensive position there.

12 October 1943. A second American assault along the Volturno convinces Generalfeldmarschall Kesselring to withdraw his forces to the fortifications of the Barbara Line which run from the mouth of the Trigno River on the east coast to the area around Mondragone in the west.

13 October 1943. As the Americans cross the Volturno, Italy declares war on Germany.

5 November 1943. The British reach the entrance to the Liri valley and begin an assault on the German positions on Monte Camino.

15 November 1943. With the British stalled at Monte Camino the American advance is also brought to a halt. The German military commander in Milan declares a state of emergency in response to the growing civil unrest.

21 November 1943. Generalfeldmarschall Kesselring is appointed commander of all German forces in Italy including Police and SS units.

23 November 1943. Allied troops conduct a major attack across the Sangro River south of the prepared defensive positions of the Gustav Line.

28 November 1943. British and Canadian units are able to break through the front of the inexperienced 65. Infanterie-Division and force a second crossing of the Sangro.

29 November 1943. Over the next two days the Allies occupy the towns of Mezzagrogna, Santa Maria and Fossacesia, but they are of little strategic importance and the Germans begin pouring reinforcements into the Gustav Line.

2 December 1943. At Monte Camino the British launch afresh assault against the German defenders. After four days of hard fighting the Germans withdraw. To the north, 26. Panzer-Division moves into Orsogna on the Gustav Line.

5 December 1943. Villa Rogatti, south of Ortona, is captured by Canadian and Indian troops but a strong counterattack made by Panzergrenadier-Regiment200, supported by the tanks of 26.

Panzer-Regiment, retakes the town.

8 December 1943. Canadian units finally establish a bridgehead across the Moro River near San Leonardo. During the evening they are reinforced by armoured units.

10 December 1943. British and Canadian units are engaged in heavy fighting in the area between the Moro River and Ortona, which the Canadians christen The Gully.

13 December 1943. Fierce fighting continues in The Gully as 90.Panzergrenadier-Division withdraws and is replaced by the paratroopers of 1.Fallschirmjager-Division.

14 December 1943. In an attempt to outflank the defenders of The Gully, the Canadians attack and capture Casa Berardi.

15 December 1943. The Germans counterattack at Casa Berardi but are driven back. On the west coast, American and Free French troops mount the first assaults on the Bernhardt Line.

16 December 1943. US troopsfinally take capture San Pietro Infine after a ten days of constant battle.

20 December 1943. A Canadian assault at The Gully finds that the Germans have fallen back to Ortona. An attempt to advance towards the town is driven back by heavy machine-gun fire.

21 December 1943. Canadian troops fight their way into Ortona but it will be more than a week before the town is secured.

26 December 1943. Indian troops capture Villa Grande. In the west, US troops capture Morello Hill, overlooking San Vittore.

28 December 1943. The German paratroopers defending Ortona fall back across the Moro River.

3 January 1944. The British begin their attacks against the Gustav Line. On the following day, the Americans assauit the German positions on the Bernhardt Line.

12 January 1944. In appalling weather, the Americans begin their assauit on the Gustav Line, capturing the town of Cervaro on the Rapido River.

IS January 1944. XIV.Panzerkorps abandons Monte Trocchio, south of Cassino, and withdraws across the Rapido River.

21 January 1944. The tanks of 15.Panzergrenadier-Division succeed in eliminating the American bridgeheads aiong the Rapido River. Later that day the Germans are reinforced by 29.Panzergrenadier-Division and 90.Panzergrenadier-Division. Under the cover of darkness the Americans cross the river and establish several small footholds which are all wiped out on the following day.

22 January 1944. Allied troops land at Anzio against almost no opposition.

24 January 1944. As the Allies batter away at the Gustav Line Hitler orders that the German defensive positions are to be held at all costs.

28 January 1944. The Germans mount the first counterattack against the Allied beachhead at Anzio.

30 January 1944. Allied forces attack from the Anzio beachhead toward Cisterna and Campoleone. None of the objectives are achieved and an entire American battalion is iost.

A mid production Tiger I, identified by the cast commander's cupola and

the singie headlight at the centre of the hull, of schwere Panzer-Abteilung 508 photographed near Anzio on 13 February 1944. The first and third companies went into battle here on the following day and this crew seem to be making some last minute repairs.

1 February 1944. German units along the Rapido Riverfall back toward Monte Cassino.

2 February 1944. A further attempt to take Cisterna fails while on the following day an American attempt to break out of the Anzio beachhead runs head-on into a German counterattack.

4 February 1944. A German attack at Anzio penetrates the Allied defences before being beaten back.

5 February 1944. US Army units reach the outskirts of Cassino but fail to take the town.

7 February 1944. After two days of exchanging artilleryfire the Germans launch a night attack on the Anzio beachhead.

8 February 1944. US troops conduct a major assault toward Monte Cassino while the Germans retake Aprilia, north of Anzio. The first tanks ofschwere Panzer-Abteilung 508 arrive in Italy.

11 February 1944. An attack from the Anzio beachhead is repulsed by the Germans who have been intercepting Allied radio messages for days. On the previous day the German forces around

Anzio had been reinforced by 4.Fallschirmjäger-Division. A further attack towards Monte Cassino is beaten back.

15 February 1944. Throughout the day Allied bombers and artillery pound the Benedictine monastery on Monte Cassino. An attempt to capture a nearby German position fails.

16 February 1944. The Germans launch a major offensive codenamed Operation Fischfang against the Allied beachhead at Anzio. More than seven divisions are thrown at the enemy positions Including 3.Panzergrenadier-Division, 26.Panzer-Division and the Tigers of schwere Panzer-Abteilung 508.

20 February 1944. Operation Fischfang comes to an end. Although initially successful, the Germans are defeated by a combination of the weather and Alliedfirepower.

29 February 1944. A third German offensive is launched at the Anzio beachhead but fails to dislodge the Allied troops.

15 March 1944. After a lengthy bombardment the third major Allied attempt to take Monte Cassino begins. Although a number of peripheral positions fall to the Allies, the defenders in the Monastery hold out.

18 March 1944. A attack by New Zealand troops at Cassino ends with the loss of an entire tank company.

24 March 1944. At Anzio the Allied positions are subjected to heavy artillery bombardments and attacks by guided bombs. The German defenders along the Gustav Line continue to hold out.

April 1944. With both sides exhausted a period referred to as the 'big war of little battles' begins. In scenes reminiscent of the First World War, artillery duels and raids become the order of the day. Even the Tigers are used in indirectfire roles.

11 May 1944. The Allies launch Operation Diadem, the fourth and final attemptto take Cassino.

12 May 1944. Although the Allies are able to establish a bridgehead across the Rapido River and reinforce it with tanks, the paratroopers of 1.Fallschirmjäger-Division hold on in the ruins of the Monastery.

13 May 1944. Allied troops capture Ponte Sant'Angelo and Castelforte and outflank the German defences in the Liri valley.

17 May 1944. German troops begin the evacuation of Monte Cassino and a general withdrawal from the Gustav Line.

18 May 1944. The ruins of the Monte Cassino Monastery are secured by Polish troops.

20 May 1944. The Americans take the town of Gaeta on the coast south of Rome.

23 May 1944. Three American and two British divisions launch an assault from the Anzio beachhead which ends in stalemate. Elsewhere, Polish and Canadian units attack Pied monte. On the following day they manage to breach the German defences south of Rome.

25 May 1944. Elements of Panzer-Division Herman Goring defend Valmontone on the Caesar C Line, just 20 kilometres from the centre of Rome, against a strong armoured force. At high cost, the Americans take Cisterna while contact is made with the formations in the Anzio beachhead.

26 May 1944. The American tanks attacking Valmontone are ordered north toward Rome.

30 May 1944. The Americans force a gap between 1.Fallschirmkorps and LXXXVI.Panzerkorps defending the Caesar C Line allowing a break out from Anzio.

2 June 1944. Allied units overran the German Caesar C Line south of Rome.

4 June 1944. US Army units enter Rome unopposed. The city's strategic value is, however, negligible and any propaganda advantage Is soon negated with the news that the Allies had landed in Normandy. Importantly Generaloberst von Vietinghoffs 10.Armee, Including the Panzers of the Hermann Goring Division and 15. Panzer-Grenadier-Division, is allowed to escape.

6 June 1944. During the next ten days, against little opposition, the Allies capture Tivoli, Civitavecchia on the coast, Civita Castellana, Orvieto and advance as far as Spoleto and Foligno, an Important roadjunction on the Topino River at the foot of the Appenines.

21 June 1944. Advancing past Perugia, the British are held up at a line of outposts, most notably around the village of Sanfatucchio on the eastern side of Lake Trasimene.

22 June 1944. After an Allied breakthrough near Giuncarico, a single Tiger of schwere Panzer-Abteilung 504, commanded by Oberfähnrich Oskar Röhrig, stationed near the village of Perolla, destroys eleven Sherman tanks and forces the crews of another twelve to abandon their vehicles. For his bravery Oberfähnrich Röhrig, is awarded the Ritterkreuz, the only member of the battalion to receive the medal during the Italian campaign.

2 July 1944. The Germans evacuate Siena.

16 July 1944. British troops capture Arezzo on the Trasimene Line and cross the Arno River.

19 July 1944. The Germans abandon Livorno leaving behind over25,000 booby traps.

23 July 1944. American troops enter Pisa.

4 August 1944. The Germans abandon Florence.

25 August 1944. The British launch Operation Olive, a major assault on the Gothic Line.

Photographed on the Via Prenestina which, in 1944, ran from the centre of Rome to the area between Valle Martella and Tenuta Pallavicini, this tank may be one of the Tigers of schwere Panzer-Abteilung 508 which broke down on 24 May 1944 during the withdrawal towards the italian capital and could not be moved. Other images from the same series show a radio aerial mount on the turret's right-hand side suggesting that this tank was from the battalion's third company.

30 August 1944. Canadian armoured units conduct the first attack on Pesaro but are beaten back after iosing over thirty tanks.

3 September 1944. Canadian troops penetrate the initial defences

of the Gothic Line but fail to break through the so-called Green II positions behind the main front.

4 September 1944. As part of Operation Olive, British troops launch the first of eleven futile assaults on Gemmano, south-west of San Marino.

12 September 1944. In two days of savage fighting, Canadian and British armoured units capture Coriano, a major position on the Gothic Line.

15 September 1944. Indian unitsfinally force the Grenadiers of 98. lnfanterie-Division from Gemmano.

22 September 1944. US Army troops capture the II Giogo pass on the Gothic Line.

26 September 1944. The German defences along the Uso River north of Rimini, made up of paratroopers from Fallschirmjager-Regiment 1 and an Ostlegion infantry battalion, are overwhelmed by British armoured units.

1 October 1944. US Army units attack Monte Battaglia, a part of the Gothic Line defences. The men of 44. Reichsgrenadier-Division Hoch und Deutschmeister manage to hold out for four days before retreating.

5 October 1944. Concerted assaults by American, British and

Indian divisions force 10.Armee to withdraw toward Bologna.

20 October 1944. Monte Grande falls to the Americans and on the following day the British cross the Savio River.

23 October 1944. The British capture Monte Spaduro despite a dogged defence by men of Grenadier-Regiment 756 and Fallschirmjager-Regiment 3.

5 November 1944. British troops capture Ravenna cutting the rail line to Bologna.

23 November 1944. Allied troops fight their way across the Cosina River but remain under constant artillery fire directed from the hills around Bologna.

25 November 1944. US and Brazilian troops attack Monte Belvedere and Monte Costello, south-west of Bologna, capturing both positions on the following day. However, German counterattacks regain Monte Costello within hours and on 28 November the Brazilians are thrown off Monte Belvedere.

29 November 1944. A further attempt to take Monte Costello is repulsed. On the same day Allied troops take Faenza.

26 December 1944. After weeks of relative calm, the Axis units on the western sector of the Gothic Line launch a limited offensive between Massa and Lucca codenamed Wintergewitter, or Winter

Storm. Two understrength Italian divisions with two battalions of Grenadier-Regiment 285 and two ad-hoc German battalions manage to penetrate the Allied lines and advance over 25 kilometres by the afternoon of the following day. They are eventually halted by fresh Indian units. Bathe sides take up defensive positions.

20 February 1945. As the weather clears and the fighting resumes, American and Brazilian troops mount a full-scale offensive against German positions at Monte Castelio and Monte Della Torraca which they had failed to secure In November.

8 March 1945. Unknown to either Hitier or OKW in Berlin, Generaloberst von Vietinghoff, by now the overall commander in itaiy, and Obergruppenführer Karl Wolff secretly contact the Allies to discuss the possibility of surrender.

5 April 1945. British infantry units attack German positions near Lake Comacchio in preparation for a large-scale offensive.

6 April 1945. The Allies launch Operation Grapeshot, a major assault aimed at breaking into the Lombardy Plain and advancing to Bologna.

10 April 1945. A massive aerial bombardment of German positions along the Santerno River is conducted in preparation for a major assault towards Argenta. On the following day New Zealand and Polish troops cross the river.

12 April 1945. Indian troops cross the Santerno Riveras Panzergrenadier-Regiment 15 arrives to reinforce the German defenders.

14 April 1945. Panzergrenadier-Regiment 15 is able to hold up the British advance from the Santerno at Bastia and the Fossa Marina canal. On the same day elements of 29.Panzergrenadier-Division arrive as reinforcements. Hitler denies Vietinghoffs request to withdraw behind the Po River.

15 April 1945. US troops advance toward Bologna while the British launched an attack across the Fossa Marina canal.

17 April 1945. Brazilian troops captured the town of Montese. In two days of bitter fighting the British expand their bridgehead at the Fossa Marina canal by barely 900 metres.

18 April 1945. The tanks of 29.Panzergrenadier-Division attack the British bridgehead north of the Fossa Marina canal but are beaten back.

20 April 1945. US Army units break through the German defensive lines and reached the Po River Valley north of Bologna which the Poles enter on the following day.

23 April 1945. Parts of 148.lnfanterle-Division are sent towards Parma but find the city under the control of Italian partisans. Allied troops take Ferrara and Bondeno.

24 April 1945. British units attack across the Po River and advance to make contact with American troops.

26 April 1945. As units of the US Army capture Verona, uprisings begin in major Italian cities, notably Genoa and Milan.

28 April 1945. Generaloberst von Vietinghoff dispatches a messenger from his headquarters at Bolzano toward the Allies lines seeking a ceasefire. On the same day the remnants of 148.lnfanterie-Division are badly mauled by US armoured units at Fornovo di Taro, 10 kilometres south-east of Parma, and surrender en masse.

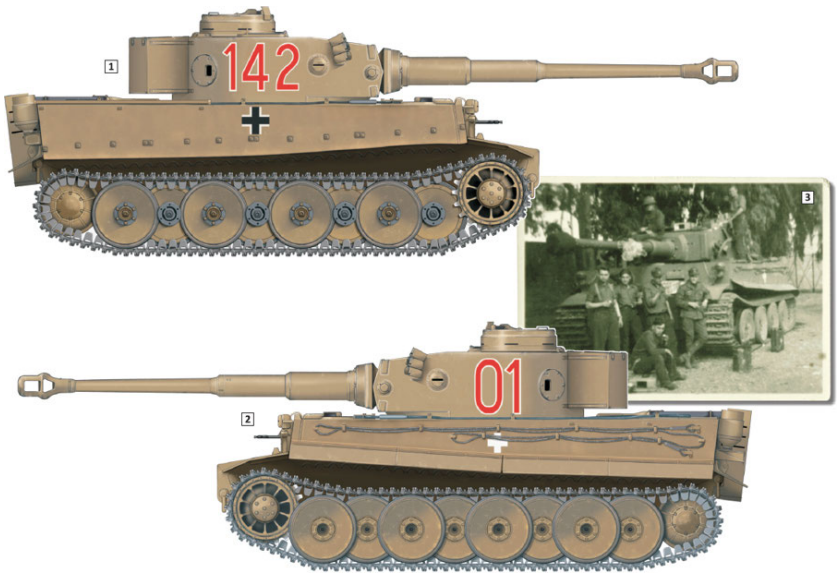
29 April 1945. British and American units link up near Padua, probably saving the German garrison which had been surrounded by Italian partisans.

30 April 1945. American units make contact with French forces near the Italo-French border. In Berlin, Hitler commits suicide.

1 May 1945. The German headquarters in Italy announces a cessation of hostilities and German troops begin surrendering.

Among the thousands of German military personnel who surrendered to the Allies during the first week of May 1945 were these officers and men of278.lnfantrie-Division photographed near the Austrian border. The division's unit insignia is clearly visible on the front of the Schwimmwagen and the motorcycle sidecar.

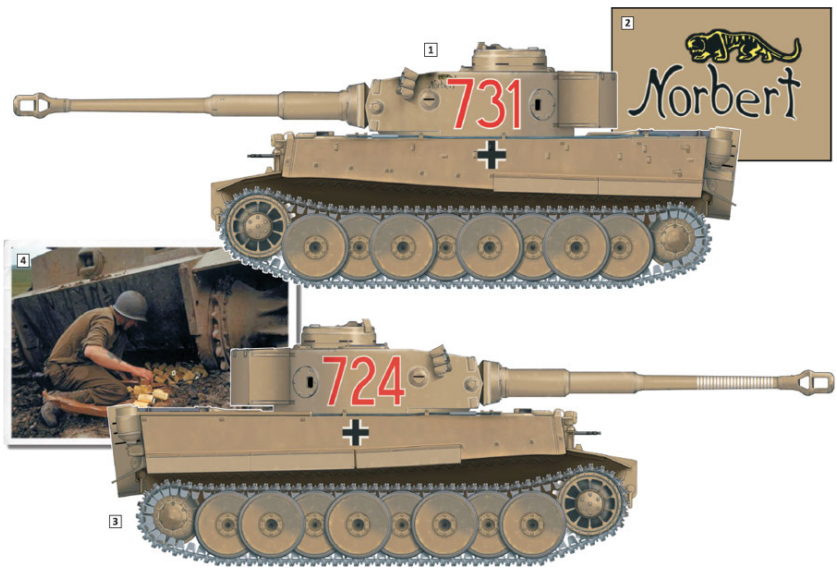
CAMOUFLAGE & MARKINGS



1. Pzkpfw VI ausf H Tiger I. 1.Kompanie, schwere Panzer-Abteilung 504. Reggio, Italy, November 1942. Photographed as it was loaded onto one of the ferries that shipped these tanks to North Africa, this tank's outer row of roadwheels have been removed and it has been fitted with the narrow 520mm transport tracks. A photograph of this tank, in the configuration depicted here, can be seen on page 3. The large, distinctive turret numbers were commonly seen on all types of German tanks at this stage of the war.

2. Pzkpfw VI ausf H Tiger I. Stab, schwere Panzer-Abteilung 504. Tunisia, late 1942. The large turret number 01 identifies the battalion's commander Major Hans-Georg Lueder who led schwere Panzer-Abteilung 504 throughout the fighting in North Africa. Note the solid white Balkenkreuz wihich is visible in our photograph (3) at right. Both tanks depicted on this page

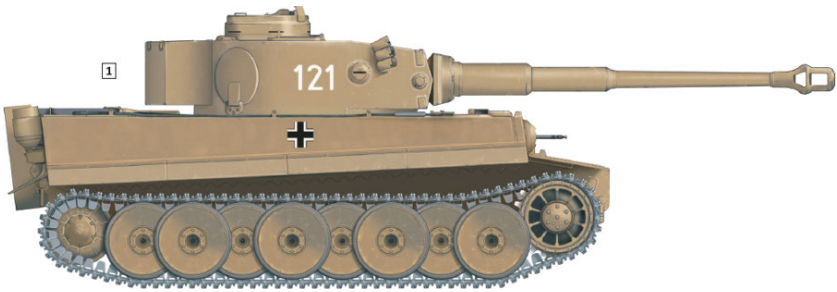
are painted in a base coat of RAL 8020 Braun and the camouflage colours used by the German Army are discussed further on page 62. Both vehicles are fitted with the field-modified fenders and headlight supports peculiar to this battalion.



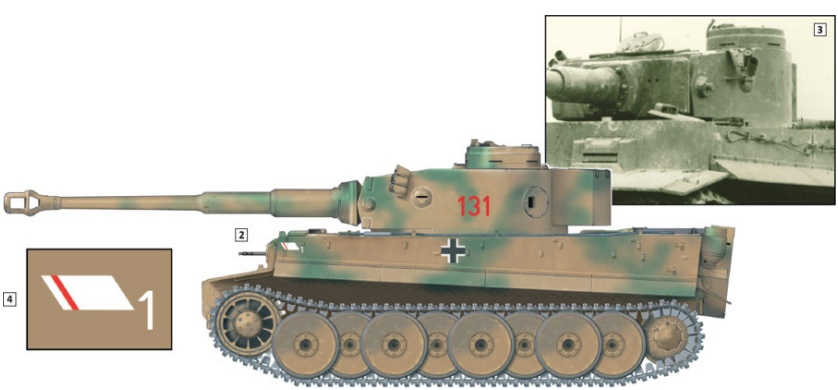
1. Pzkpfw VI ausf H Tiger I. 7.Kompanie, Panzer-Regiment 7. Tunisia, eariy 1943. On 26 February 1943 the first and second companies of schwere Panzer-Abteilung 501 were attached to Panzer-Regiment 7 of 10.Panzer-Division and the tanks were renumbered as the regiment's seventh and eighth companies. The numbers were applied in the same style and using the same colours and this tank formerly been Tiger 131. The battalion's stalking tiger unit badge was retained and has here been painted onto the turret side with a name which is probably Norbert (2).

3. Pzkpfw VI ausf H Tiger 1.7.Kompanie, Panzer-Regiment 7. Tunisia, early 1943. This tank had earlier been numbered as 112 and was photographed on several occasions during its

service in North Africa. The number of kill rings on the barrel is based on what must be the final image, showing the tank after it was abandoned by a roadside. The photograph at left (4) shows that these vehicles were thoroughly repainted, including the inner surfaces of the drive sprocket, before being sent to North Africa. The tank shown here being prepared for demolition is actually Tiger 142 depicted on the previous page.

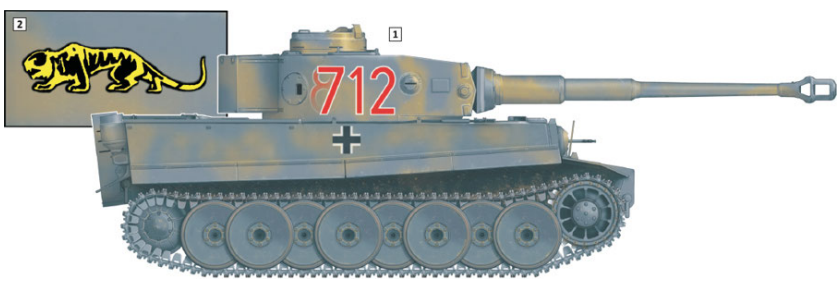


1. Pzkpfw VI ausf E Tiger I. 1.Kompanie, schwere Panzer-Abteilung 504. Tunisia, spring 1943. The tank's designation was formally changed in March 1943 to that used here. The white turret number is unusual but is quite clear in the photograph on which this illustration is based as is the blackoutline ohhe Balkenkreuz.



2. Pzkpfw VI ausf E Tiger I. 1.Kompanie, schwere Panzer-

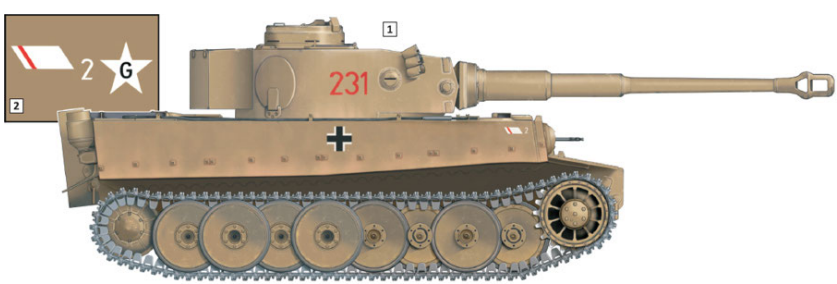
Abteilung 504. Tunisia, April 1943. Captured by British Army units in eastern Tunisia this tank now resides at the RAC Tank Museum, Bovington and has been restored to running order. Many readers will be familiar with the tank's current camouflage scheme but I suggest that the reconstruction shown here of a base coat of RAL 8020 with a mottled disruptive pattern of RAL 7027 is more likely. The official orders called for the disruptive colour to be applied with feathered edges and darker patches are faintly visible in our photograph (3) as is the turret number. The tactical symbol of a white rhomboid denoting a fully-tracked armoured unit together with the company number (4) was carried by most tanks of the battalion on both sides of the hull



1. Pzkpfw VI ausf E Tiger I. Tunisia, spring 1943. German researcher Hartmut von Holdt, who has been studying these tanks for many years, has suggested that some at least arrived in North Africa painted in RAL 7021 Dunkelgrau. Admittedly the evidence is based on a colour photograph of this particular tank taken some years after the end of the war but the large dark grey patches are quite obvious and it does seem unlikely that a museum would apply new paint so carefully around the existing markings. In the 1943 photograph darker areas are visible and this may indicate a disruptive pattern of camouflage, here represented as RAL 7008 Graugrün. Although speculative, this would also explain US Army intelligence claims that Tunisian Tigers were predominantly green.

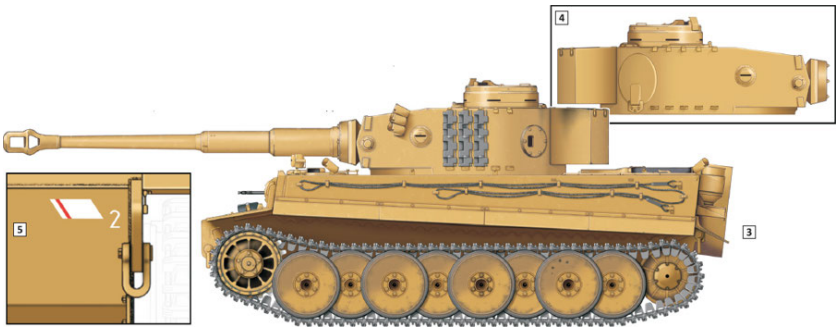
2. The battalion's unit insignia. This is also shown in the photograph on page 49. At right: Note the partly covered 8.Kompanie turret number which is clearly visible in our photograph of this tank.

3. Pzkpfw VI ausf E Tiger I. Sicily, summer 1943. From 26 May 1943 the tanks of the battalion's 2.Kompanie, which had remained in Sicily, were attached to Panzer-Abteilung 215 and adopted that unit's formation badge (4) of a white star with the letter G standing for the Panzer battalion's commander Major Kurt Gierga. It was carried in addition to the white Panzer rhomboid and comanpy number and most, but apparently not all, repeated the markings on the air filter (5). Note that the re are actually two rhomboid making on the hull side.

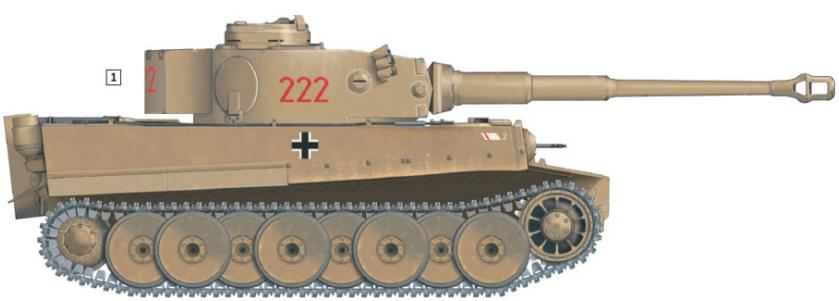


1. Pzkpw VI ausf E Tiger I. 2.Kompanie, schwere Panzer-Abteilung. Sicily, summer 1945. Commanded by Leutnant Steuber, the leader of the company's third platoon, this tank was destroyed later in the campaign. From the available

photographic evidence it would appear that the simple Panzer rhomboid marking was carried on the right side of the hull while the Panzer-Abteilung 215 formation badge (2) was only applied to the left. Note that the side fenders and a number of roadwheels are missing.

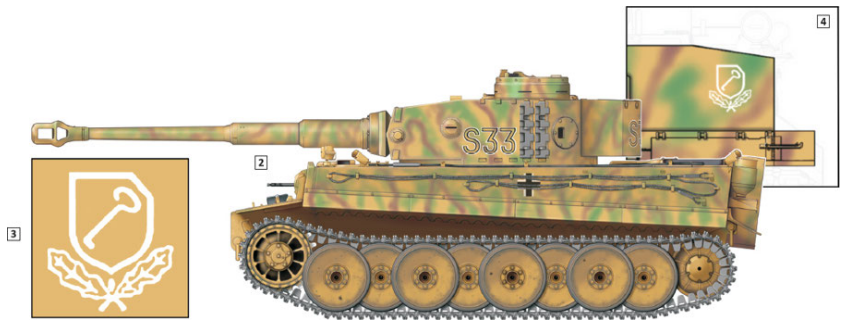


3. Pzkpw VI ausf E Tiger 1.2. Kompanie, schwere Panzer-Abteilung. Sicily, summer 1945. The six replacement tanks that the battalion received in June 1943 were all painted in RAL 7028 Dunkelgelb and fitted with spare track hangers on the turret sides and S-Mine dischargers on the hull deck as shown here. At least two had five sets of track hangers on either side of the turret (4) and the position of the Panzer rhomboid, on the hull front (5) may have been common to most, if not all. Turret numbers were not applied to these thanks.

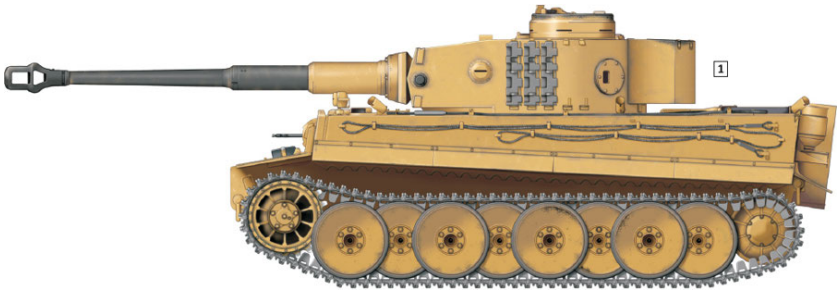


1. Pzkpfw VI ausf E Tiger I. 2.Kompanie, schwere Panzei-

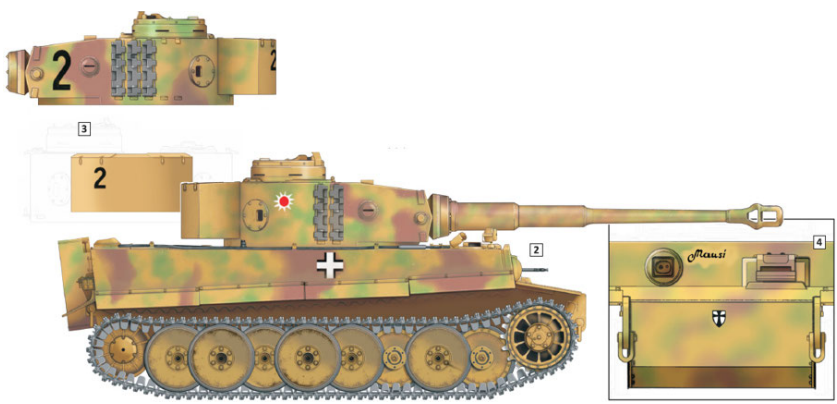
Abteilung 504. Sicily, summer 1943. When Leutnant Steuber's tank number 231 was disabled he took command of this vehicle, the only Tiger to be evacuated from Sicily. Note that the full set of markings is not carried on the hull side as explained on the previous page. The tank was ferried to the mainland on 17 August 1943 but was abandoned soon afterwards.



2. Pzkpfw VI ausf E Tiger I. 13.Kompanie, SS-Panzer-Regiment 1. Italy, summer 1943. During the regiment's brief sojourn in Italy a total of twenty-seven new tanks were delivered. They had no smoke dischargers on the turrets, which were fitted with track hangers on both sides, and the turret roof included a loader's periscope. The hulls had a complete set of air filters and S-Mine dischargers although a number of the latter seem to have been removed. The tanks were all painted in similar camouflage schemes of random strokes of Rotbraun and Olivgrün over a base coat of Du nkelgelb. The numbering system was the same as that used previously in Russia and all carried the unit insignia of SS–Panzergrenadier-Division Leibstandarte Adolf Hitler (3) in the position shown here (4).

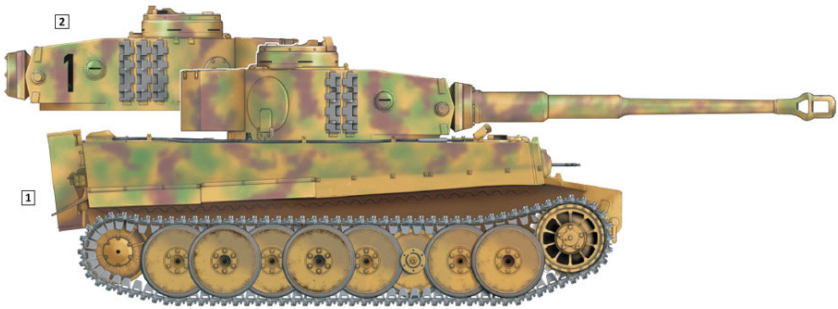


1. Pzkpfw VI ausf E Tiger I. Schwere Panzer-Kompanie Meyer. Northern Italy, July-August 1943. Most, if not all, the eight tanks of this company left Germany in the camouflage scheme depicted here. Note that in a number of places the RAL 7028 Dunkelgelb paint has been worn to reveal the initial coat of Dunkelgrau. This may be the tank of Leutnant Meyer, the company's original commander.



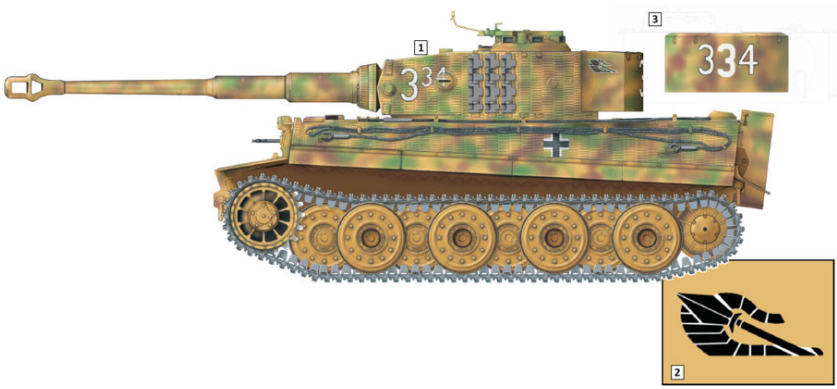
2. Pzkpfw VI ausf E Tiger I. Schwere Panzer-Kompanie Meyer. Northern Italy, July-August 1943. Although this vehicle's camouflage is typical of the period, the reversed colours of the Balkenkreuz and what appears to be a sunburst marking on the turret side are both unusual. A number identifying the individual tank was painted onto the rear of the stowage box and on the left side of the turret only (3). The tank's name, Mausi, and the company's unit insignia (4) were carried on the

hull front. Note that is tank is fitted with track hangers and has the pistol port on the right-hand side of the turret indicating that the former were retro-fitted. It should be noted that the photograph on which this illustration is based may have been taken after the company had been absorbed by schwere Panzer-Abteilung 508.



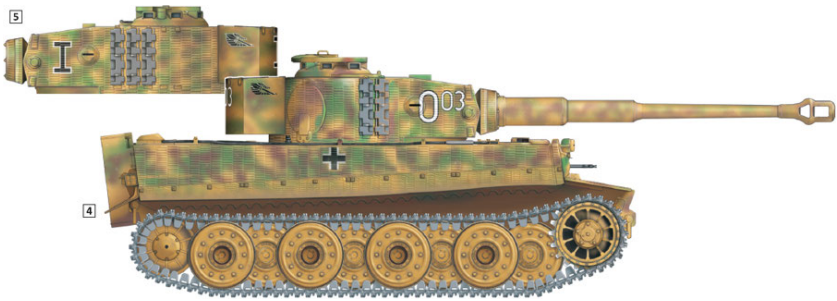
1. Pzkpfw VI ausf E Tiger I. Tiger-Gruppe Schwebbach. Italy, spring 1944. In early December 1943 Hauptmann Schwebbach arrived to take command of schwere Panzer-Kompanie Meyer and was killed on 26 January 1944 near Aprilia when an anti-tank round hit the cupola of this tank. The date often given of 25 May and the location of Cisterna cannot therefore be correct, although the two towns are close. Note that the tank's number is only carried on the left side of the turret (2) and probably on the rear of the stowage box, although there is no photographic evidence to confirm this. Other contemporary images confirm that the company's unit insignia (4) was also marked on the hull front (5).

3. Pzkpfw VI ausf E Tiger I. Schwere Panzer-Kompanie Meyer. Italy, spring 1944. With the death of Hauptmann Schwebbach command of the company reverted to Leutnant Meyer and by 3 March 1944 the remaining tanks had been formally absorbed by schwere Panzer-Abteilung 508, most going to 1.Kompanie. A number of the independent company's Tigers were named and confirmed examples include Mausi, shown on the previous page, Strolch (5) and v.Eschnapur as described in the main text. Note that this tank's number has been applied to both sides of the turret and in a style unlike the others of the company.

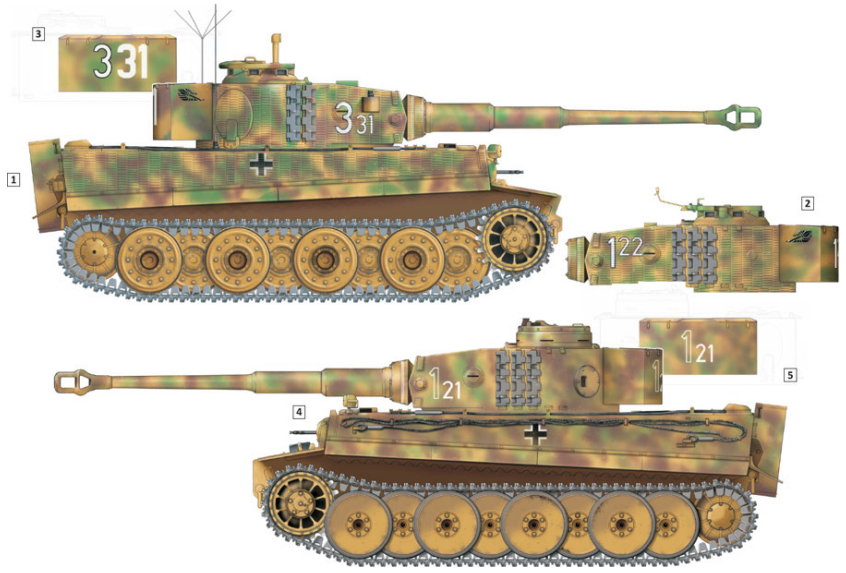


1. Pzkpfw VI ausf E Tiger I. 3.Kompanie, schwere Panzer-Abteilung 504. Italy, summer 1944. The battalion adopted this style of numbering when it was rebuiltin Holland followingthefighting in North Africa and Sicily. The unit

insignia of a spear superimposed on a stylised tank track (2) was usually, but not always, carried on both sides of the turret stowage box in the positions shown here. The design varied in small details with some having a white outline. Note the rather haphazard application of the tank's number on the stowage box (3) which was seen on a number of other tanks of this company and is also shown on the nextpage.



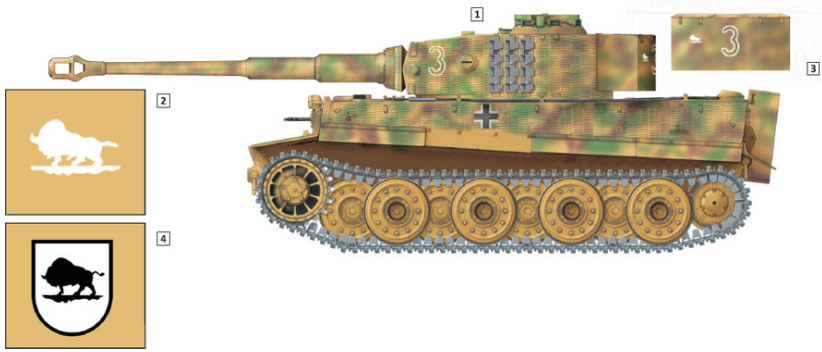
4. Pzkpfw VI ausf E Tiger I. 3.Stab, schwere Panzer-Abteilung 504. Italy, summer 1944. Probably photographed just after the battalion arrived in italy on 9 June 1944, this command tank is identified with a numbering system which was very quickly replaced by the use of roman numerals (5). Presumably this Tiger's turret number was changed to ili. Note that the number 003 was repeated in the same style on the rear of the stowage box. The battalion's unit insignia is not visible in the photograph on which this illustration is based but I feel that its placement here is a reasonable assumption



1. Pzkpfw VI ausf E Tiger 1.3.Kompanie, schwere Panzer-Abteilung 508. The battalion's third company was formed from the independent Panzer-Kompanie (Funklenk) 313 and continued to operate and control a number of Borgward IV remote-control demolition vehicles. Consequently, the position of the specially-installed turret radio antenna necessitated that the tank's number should be applied on the right-hand side of the turret as shown here. As a contrast, an example of a 1.Kompanie tank is also shown (2). Note the seemingly rough style of numbering on the rear of the stowage box (3) which suggests that it was over-painted at some time and was not uncommon within 3.Kompanie.

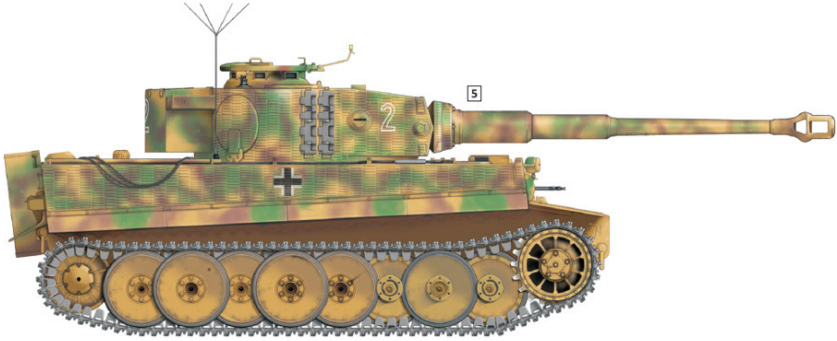
4. Pzkpfw VI ausf E Tiger l.1.Kompanie, schwere Panzer-Abteilung 508. Italy, early 1944. Photographed during the fighting for the Anzio bridgehead this tank illustrates the style of marking used by the battalion prior to the adoption of a single number system which identified the company only. Note that the tank's number is also carried on the rear of the stowage box in an identical style and size (5). This tank is

almost certainly one of the schwere Panzer-Kompanie Meyer survivors which were all taken from the last of the early-production series and featured the rubber rimmed road wheels, early cupola and lack of Zimmerit as shown here.



1. Pzkpfw VI ausf E Tiger I. 3.Kompanie, schwere Panzer-Abteilung 508. Italy, late 1944. The large number 3, indicating the company and rendered as a white outline, was an identifyingfeature of this battalion's tanks. The three-digit numbering system depicted on the Tiger of 1.Kompanie shown on the previous page seems to have been short-lived and may have been used by that company only.

The charging bison unit insignia (2), applied here without the enclosing shield, can be seen to the left of the number on the turret stowage box (3). Although painted in white it is quite small and therefore liable to go unnoticed in photographs of this battalion's tanks. Examples are known were the Bison has been applied in black on a white shield (4).



5. Panzerbefehlswagen Tiger ausf E. 2.Kompanie, schwere Panzer-Abteilung 508. The battalion's tanks featured a mixture of early and late production features with the rubber-rimmed road wheels shown here predominating until April 1944 when the first five tanks with the all-steel wheels arrived. Of note is the metal or wooden channel fitted to the side of the turret stowage bin. Attached to both sides, its purpose is unclear. Note also the insulator for the radio aerial next to the commander's cupola identifyingthistank as a command version.

MODEL SHOWCASE

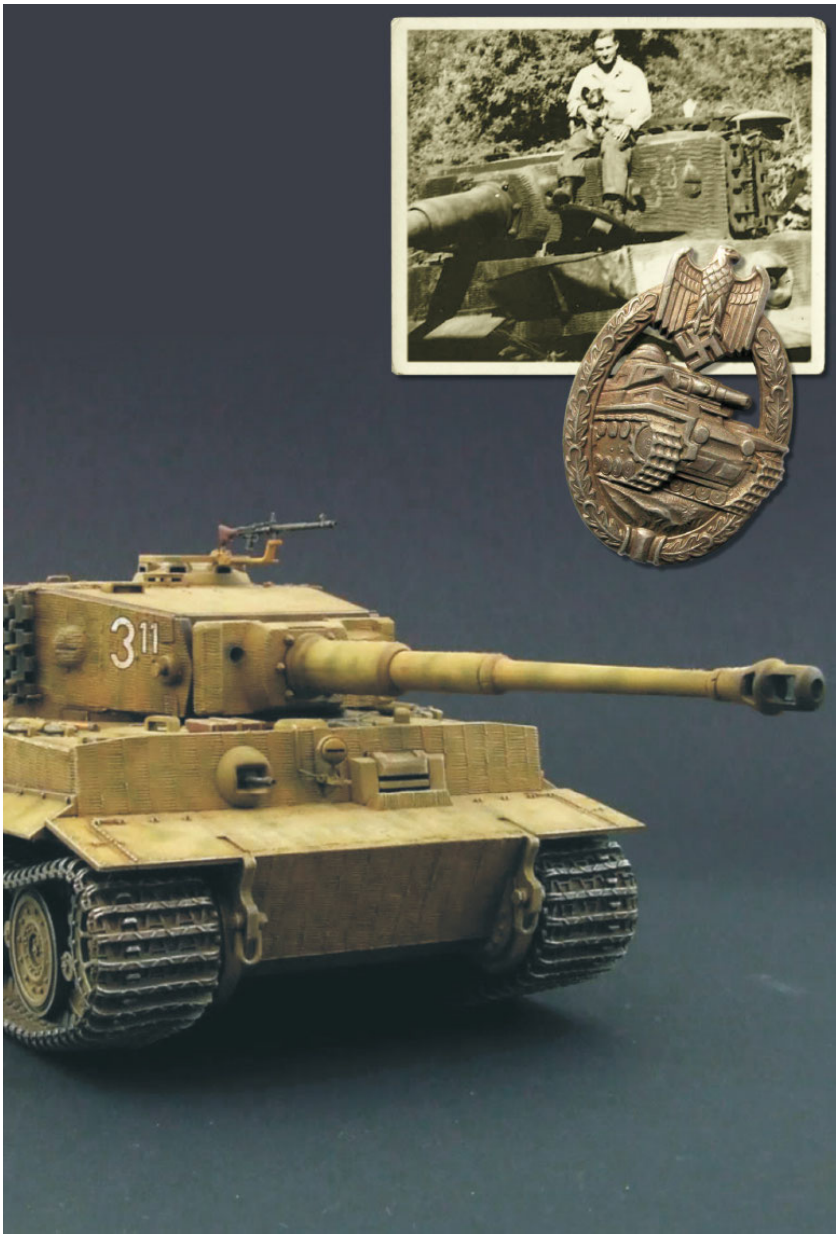
TIGER I

3.KOMPANIE SCHWERE PANZER-ABTEILUNG 504

ITALY 1944

1/48 SCALE

RALPH RIESE


311

This Tamiya 1/48 scale Tiger Late Production is the work of Australian modeller Ralph Riese. The extremely clean and neat construction is enhanced by Ralph's exquisite painting and weathering effects.

Building straight from the box, with the exception of the photo-etched engine grilis, Ralph has taken advantage of the model's crisp detail and accurate parts. The Zimmerit is included in the kit as a number of separate plastic sheets and it has been applied very convincingly here. In addition the markings were hand-painted.

Further examples of Ralph's meticulous painting and weathering. The very realistic scale effect achieved by using the Zimmerit supplied with the kit can be seen in the images on this page. Supplied in a number of

thin plastic sheets, which correspond to the shapes of the turred and hull, it is fixed to the model with ordinary Tamiya adhesive.

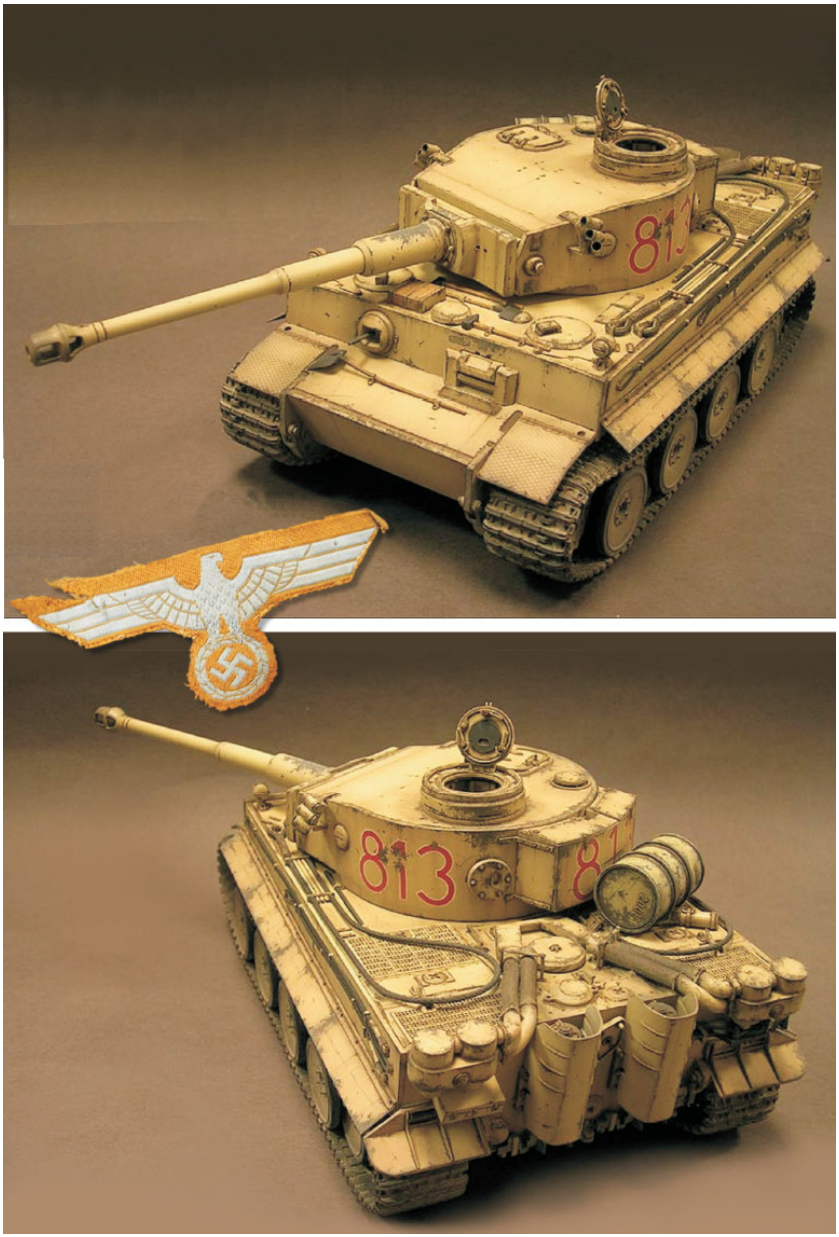
TIGER I

8.KOMPANIE PANZER-REGIMENT 7

NORTH AFRICA 1943

1/35 SCALE

LIM KIAN GUAN



Lim Kian Guan's model is based on the Tamlya 1/35 scale Tiger I Initial Production kit. Note the distinctive exhaust covers, rounded rear mudguards and the spare tracks at the lower edge of the hull. Painted in RAL 8000 Gelbbraun, the extensive wear and chipping was only achieved by hours of painstakingly intricate work.

Other features of these early tanks can be seen here, including the field-modified front mudguards, the full set of Feifel air filters and the brackets holding the stowage box. As depicted here, only 8.Kompanie carried the tank's number on the stowage box.

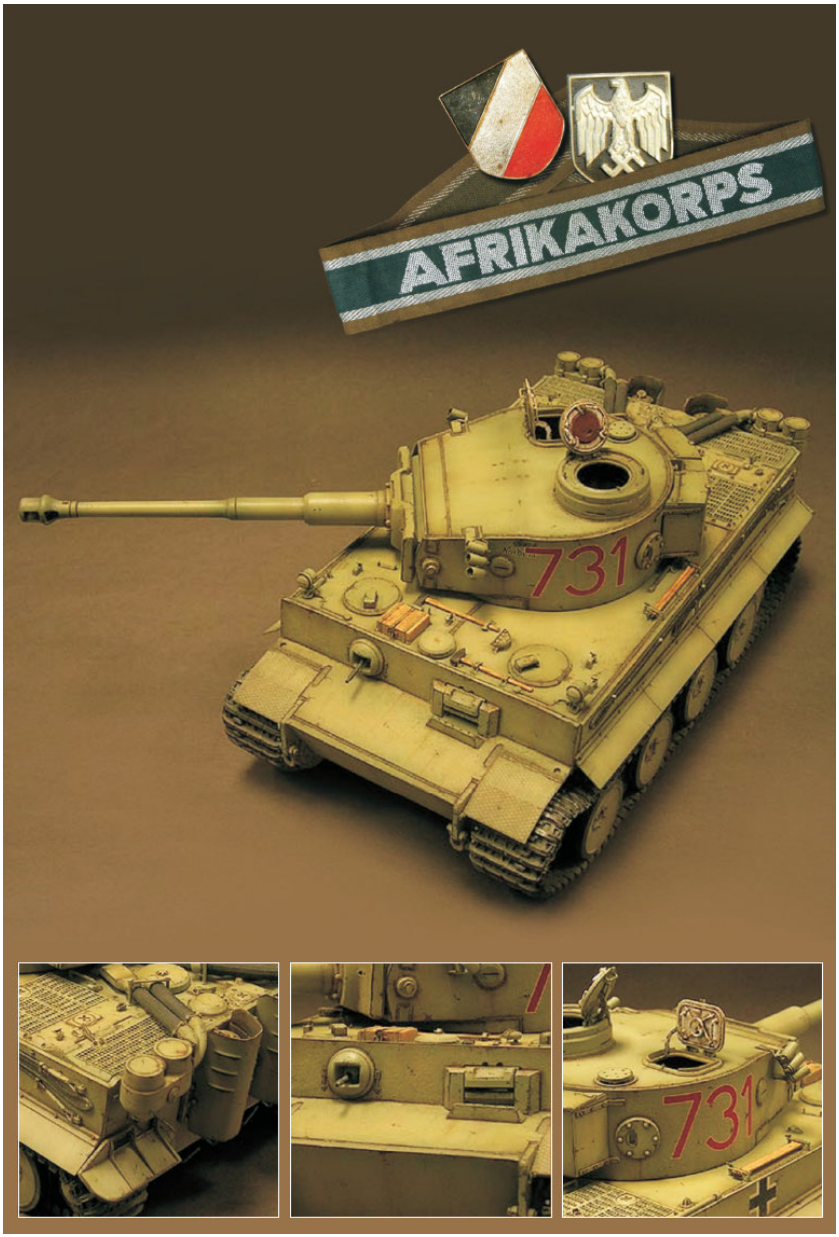
TIGER I

7.KOMPANIE PANZER-REGIMENT 7

NORTH AFRICA 1943

1/35 SCALE

JOHN THAM


AFRIKAKORPS
731

Singaporean modeller John Thom's Tiger is based on the Tamiya 1/35 scale kit with added fine detailing including photo-etched brackets, clips and engine grills. This 7.Kompanie tank is also shown and discussed in the Camouflage and Markings section on page 18.

The subtle dust-covered effect of this model is particularly impressive. There is some debate about the colours used for the North African Tigers and my own research and conclusions can be found on page 62.

TIGER I

3.KOMPANIE SCHWERE PANZER-ABTEILUNG 508

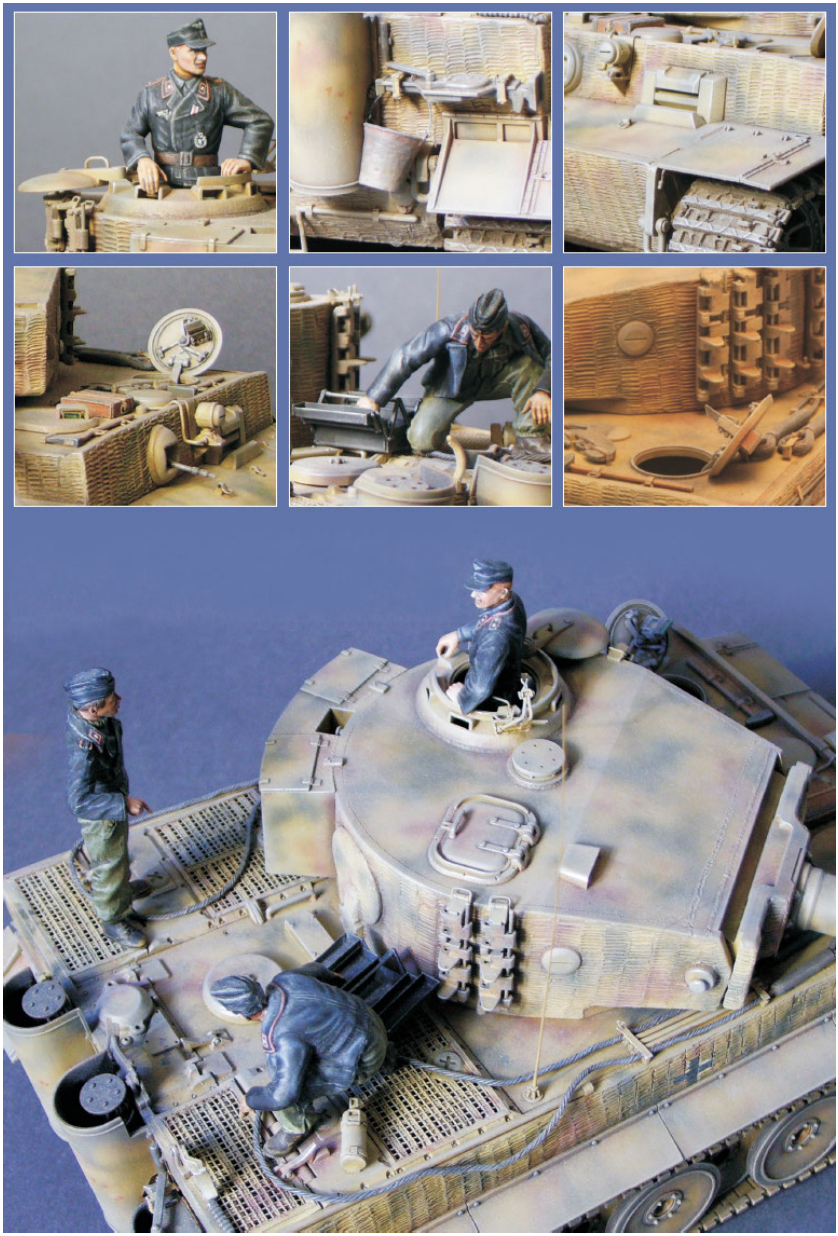
ITALY 1944

1/35 SCALE

ANDREA MASELLI

Italian modeller Andrea Maselli's beautifully crafted replica is based on the Tamiya 1/35 scale kit, first released in 1955, with many added details.

The markings represent a Tiger of schwere Panzer-Abteilung 508 with the numbering system that was briefly in use in 1944. The tank's coating of Zimmerit was made by appiying a thin iayer of Milliput modelling putty and the ridges were created with a small screwdriver.



All the added details, including the hatch interiors, headlight lead, cables and the crew's toolbox, were made entirely from scratch. The completed assembly was painted with Tamiya acrylics with a base coat of

Dunkelgelb and a mottled camouflage pattern of Flat Brown and Japanese Army Green. Finally, Andrea used oil paints as a wash and fordrybrushing.

BORGWARD BIV

3.KOMPANIE SCHWERE PANZER-ABTEILUNG 508

ITALY 1944

1/35 SCALE

ANDREA MASELLI

Although the subject of the book is the Tiger tank it seems only fitting to include some mention of a vehicle which was so important to the Italian service of schwere Panzer-Abteilung 508. Andrea's model is based on the Dragon Models kit with extensive additions. All the extra details were scratch-built without the use of any aftermarket products including the interior of the driving compartment and engine cooling system shown below.

MODELLING PRODUCTS

Although historians and researchers debate the capabilities and shortcomings of the Tiger 1 and Tiger II tanks, there can be no doubting their popularity among armour modellers. From the early 1960s, when the first plastic construction kits were released, until today, every major manufacturer, and many smaller companies, have at one time produced scale models of these deservedly famous tanks. Most of these early kits would be considered little more than toys today, although many fetch high prices with collectors. In contrast, the more recent models are highly-detailed replicas and additional extras such as photo-etched brass parts, turned aluminium barrels and workable tracks are today commonplace additions. The entiy into the market of a number of Chinese manufacturers has also contributed to the proliferation of smaller, specialised companies producing accessories in resin, photo-etched metal, wood and other materials allowing a level of super-detailing which had previously been the province of a few master modellers. Models of the Tiger are marketed in a number of scales ranging from 6mm wargames miniatures to the large, radio-controlled 1/6 scale versions. However, I have chosen to concentrate here on the most popular modelling scales of 1 /35, 1/48 and 1/72 as I have in previous titles. In addition, I have not included vehicles or variants which do not fit into the time frame of this book. An index of manufacturers can be found on page 64.

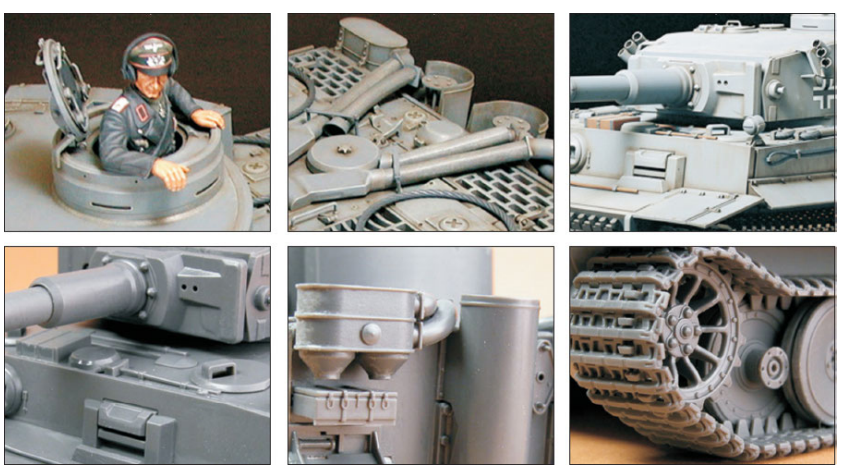
TAMIYA INCORPORATED

This Japanese company has been manufacturing plastic kits since 1959 with the release of their first model, a Panther, in 1961. By the early 1970s Tamiya was producing a large range of armoured vehicles, figures and accessories and the company was almost solely responsible for the rise in popularity of 1/35 scale. These kits were

relatively easy to assemble and affordable and, for their day, highly detailed and accurate. Although the emergence of Dragon in 1987 provided a real challenge to Tamiya, the company remains the largest and most successful model manufacturer in the world. In 2003 Tamiya began releasing a series of models in 1/48 scale, a size which had largely been forgotten with the collapse of Bandai, and this line has been extremely successful for the company. At the time of writing Tamiya produces early, mid and late production versions of the Tiger I in 1/35 scale, and early and late production variants in 1 /48 scale. The initial production 1 /35 scale Tiger representing a tank of schwere Panzer-Abteilung 501 in North Africa is not included in the current catalogue. Tamiya also offers the 1/16 scale radio-controlled models shown here.

Tamiya's initial production Tiger I kits in both 1/35 and 1/48 scaie with the late production 1/48 scale model. At right, the 1/16 scale early production Tiger in 1/16 scaie. This model is also offered in a motorised radio-controlled version.

This loader's hatch is one of the many 1/16 scale accessories marketed by Welsh Dragon Models.



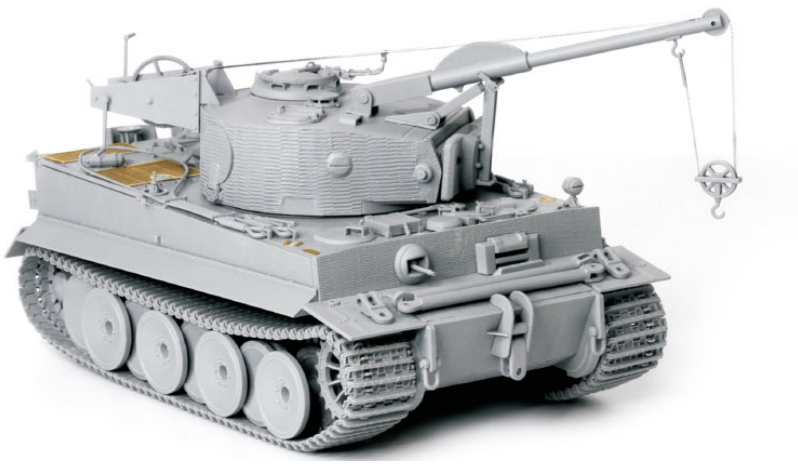
Above, top row: Details of the Tamiya 1/16 scale early production Tiger I. The model shown here is the motorised, radio-controlled version. Bottom row: The same early production vehicle rendered in 1/48 scale showing the reinforced gun mantlet, Feifel air filtering system and later drive sprocket.

DRAGON MODELS

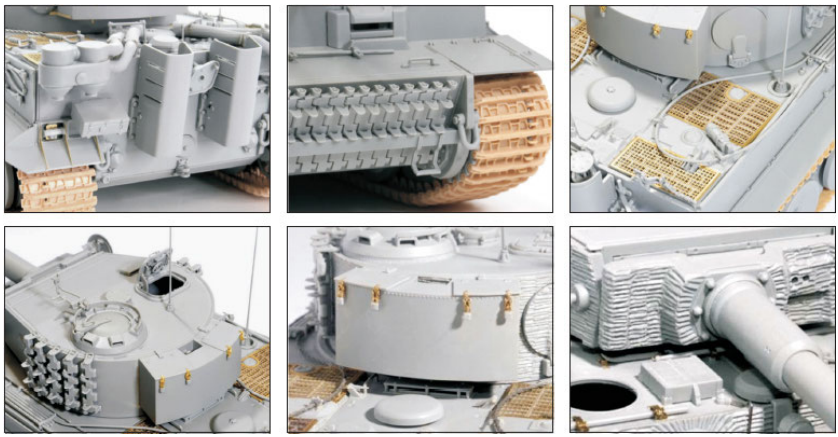
This Hong Kong based company's models have become a byword for quality and accuracy and currently Dragon's catalogue features a large number of Tiger I variants in 1/35 and 1/72 scale including kits of the Bergetiger recovery vehicle and a boxed set of the Tiger I and a Borgward BIV demolition vehicle. The larger scale models include early, mid and late production tanks as well as the so-called initial version. In addition there are two kits depicting Tigers that served in North Africa. From time to time many of these models are repackaged with bonus items such as photo-etched parts or new sets of markings under the Cyberhobby label. Most of the 1/35 scale offerings have also been released in 1/72 scale as either construction kits or pre-painted replicas. In addition the company produces a number of assembled and pre-painted models in 1/144 scale.

Dragon Models' early production Tiger in 1/B5 and at right, the initial

production version. Both models depict vehicles that served in North Africa.



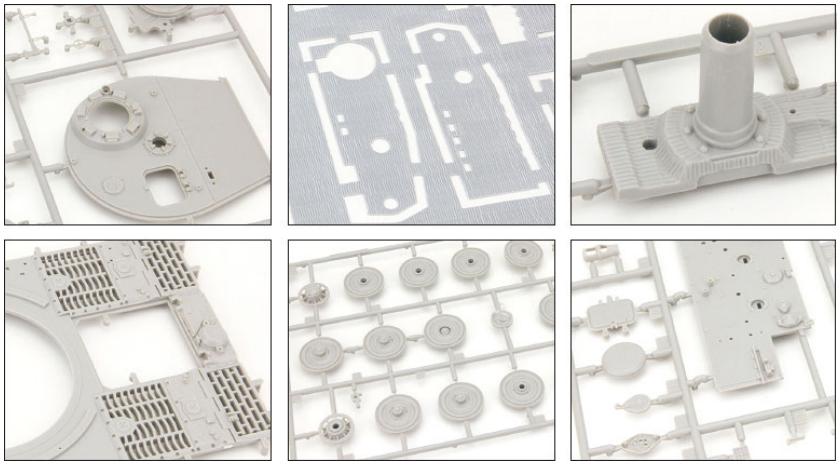
Dragon's 1/35 scale Bergetiger. Also shown Is the mid production version Tiger I with a Borgward BIV demolition vehicle. These models are featured in the Model Showcase section from page 35.



Details of Dragon Models' 1/35 scale Tiger I kits. 1. Initial production model. 2. Tunisian version. This is the tank that currently resides at the RAC museum. 3 and 4. The mid production version. 5 and 6. Late production Befehlspanzer. All the photo-etched parts shown here are included in the kits.

TRUMPETER/HOBBY BOSS

Relative newcomers to the plastic modelling world, these Chinese companies are in fact owned by the same corporation and share a common address although different models are marketed separately under the two labels. Hobby Boss produces a 1/16 scale mid production Tiger I while Trumpeter's range is made up of a number of 1/72 scale models produced with late or early production features and a recently-released late production 1/35 scale version, details of which are shown below.



ZVEZDA

Founded in 1990, this Russian company's catalogue is heavily weighted towards modern Russian and Soviet-era vehicle and aircraft models but does include an early production model Tiger I in 1/35 scale which is a retooling of an older kit first released in 1996. The same version is also offered in 1/72 and 1/100 scale, the latter size being roughly compatible with 15mm wargames figures.

Zvezda's early production 1/72 scale Tiger I model. This version is also produced in 1/100 scale in an almost identical box. Below: The Zvezda 1/35 scale early production Tiger I built with photo-etched brass details from Eduard Model Accessories.

HOBBY FAN/AFV CLUB

Hobby Fan Enterprises is the parent company of AFV Club, both of which are based in Taiwan. The current AFV Club catalogue includes a Tiger 1 early production model and a late production version fitted with narrow transport tracks, both in 1/35 scale. The company also offers, in 1/48 scale, an early production vehicle and a Tiger 1 marketed both as a 'final' and 'latest' production model. The latter features some of the last modifications incorporated into production including the 40mm turret roof, later-style loader's hatch with a fully revised engine deck and tool placement. Most kits feature non-standard inclusions such as turned metal gun barrels, photo-etched brass parts and water-slide transfers offering numerous schemes. The 1/48 scale late production Tiger 1 model

formally produced by Skybow is now marketed under the AFV Club logo. The company also provides accessories in the shape of both solid plastic and workable tracks for the Tiger I in both 1/35 and 1/48 scale in addition to ammunition, wooden crates and other general items.

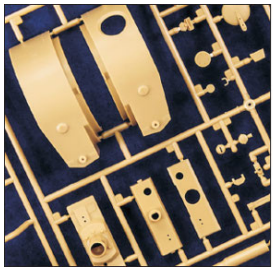
The recently-released AFV Club 1/48 scale early production Tiger I. Below: AFV Club's late production Tiger in transport mode with the special narrow tracks.

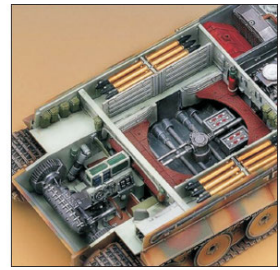
▪

ACADEMY PLASTIC MODELS

Based in Korea, this company's Military Miniatures range of 1 /35 scale figures and vehicles includes an early, mid and late production Tiger 1, the former with extensive interior detailing. Most of these models have been repackaged at some time, often with only minor changes or new markings. although some include additional parts. A Hybrid model with the later steel wheels, Zimmerit texture and

early drum-style commander's cupola is also offered but this falls outside the parameters of this book and is mentioned here as a matter of interest only.

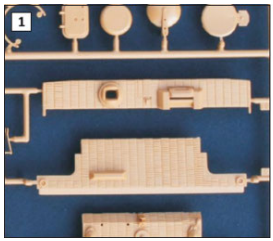


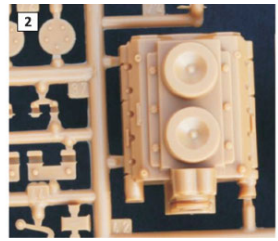


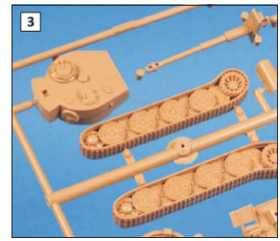
Above, from left to right: Parts from the Academy late production 1/35 scale Tiger I. The early production kit built and painted following the company's instructions and using the markings supplied. A detail of the 1/35 scale early production model interior.

ITALERI

Founded in 1962, this Italian company also offers a number of models originally manufactured by ESCI, a company which pioneered the use of link-and-length hard plastic tracks. At present Italeri's catalogue contains Tiger I models depicting early, mid and late production (1 and 2) versions and a recently-added late war Hybrid model in 1/35 scale with a late production Tiger I in 1/72 scale from from the company's Fast Assembly range (3). These kits contain two models comprising just ten pieces each and although reasonably detailed, are essentially aimed at wargamers. Of the large model manufacturers Italeri alone has ventured into 1/56 scale with a Tiger I late production kit. This scale complements 28mm wargames figures of which there are now quite a number on the market.







RYE FIELD MODELS

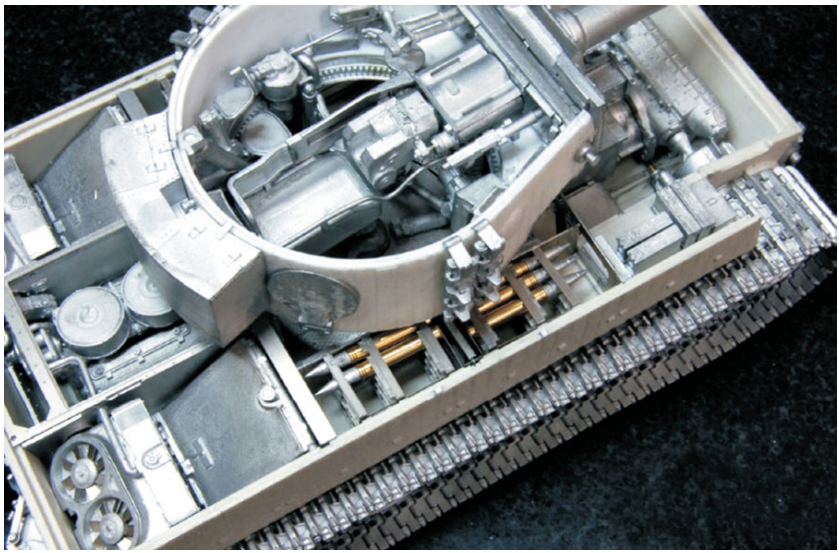
A relatively new model company based in Hong Kong, Rye Field Models has released three kits depicting Tiger I variants all in the short space of time between September 2015 and February 2016. The initial production model depicts a Tiger with the modifications seen on the first tanks sent to Tunisia and the mid production version features extensive interior detailing. Contrary to what has been written elsewhere, these are not re-worked or reissued kits but completely new models.

A selection of Rye Field Models' 1/35 scale kits. Note that the early production model specifically depicts a tank serving in North Africa. The mid production version and Bergetiger are of course both suitable for the period covered by this book. Below: The early production Tiger I built straight from the box and two examples of the reinforced gun mantlets that come with the kit.

MODEL HIRO FACTORY

This Japanese company is probably best known for its highly-detailed multi-media racing car and motorcycle kits and their foray into armour modelling was short-lived if spectacular. Model Hiro Factory's early production Tiger I was first released as a limited-edition kit in 2013 and that was followed within twelve months by a late production version, both in 1/35 scale. Both kits consisted of

parts made from resin, white metal and aluminium as well as photo-etched brass and each contained a comprehensive sheet of water-slide transfers. Both models featured interior details and the tracks and suspension were fully workable. Although both are currently out of production I have included them here as limited numbers of these complex and expensive models are released from time to time.

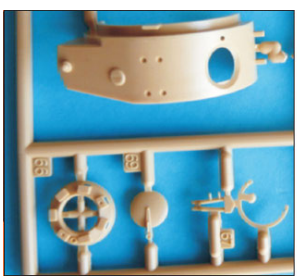


The late production Tiger I from Model Factory Hiro in 1/35 scale. The hull deck and turret roof have been removed here to show the interior details

REVELL AND AIRFIX

Revell's 1/72 scale PzKpfw VI Ausf H kit was first released in 1997 and since that time it has been reboxed several times and updated with extra parts, including the cast cupola and steel road wheels to produce the PzKpfw VI Ausf E version. Note that although the box

art of the newer model depicts a vehicle coated with Zimmerit, as most of these tanks were, this is not included with the kit. Although aging, this is a reasonably detailed model and was the first accurate rendition of this important tank in the smaller scales. The Airfix Tiger was first released in 1964 and, although the packaging and box art has changed many times over the intervening years, the kit has remained unaltered. Although a sentimental favourite, as many Airfix kits are, this 1/76 scale model is wildly inaccurate and cannot be compared to the more recent offerings from Dragon, Hasegawa or Revell.

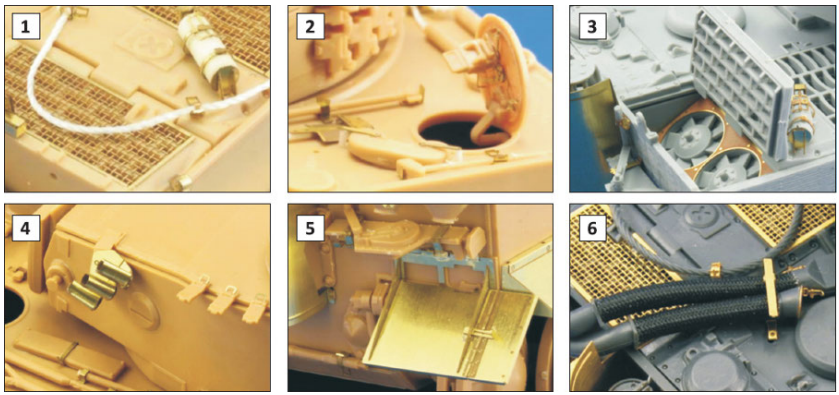


Above, at left: Parts for the Revell Tiger I ausf E kit mcluding the later cast cupola with its hatch and anti-aircraft ring. At right: The Airfix Tiger I built straight from the box. The original design for this model was apparently based on the Tiger held at the RAC museum at Bovington before its restoration and this would at least account for the kits most glaring omission, the rear stowage bin.

EDUARD MODEL ACCESSORIES

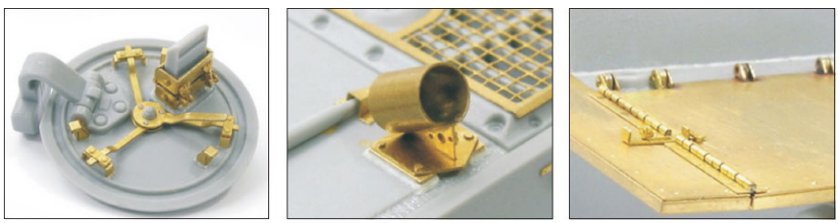
This Polish company has been manufacturing high-quality accessories in photo-etched brass and resin for many years and was one of the earliest firms to offer upgrade sets in the smaller scales. Although the examples shown here are all in 1/35 scale an number of items are available in 1/48 and 1/72 scale. Parts from the upgrade set for the Academy mid production 1/35 scale model (1

and 2), photo-etched brass details for the Dragon Models 1/35 scale late production Tiger (3), turret fixtures and rear fenders fitted to the Zvezda early production tank (4 and 5) and the engine grilles and air-filter brackets for the Tamiya early model 1/35 scale Tiger (6).



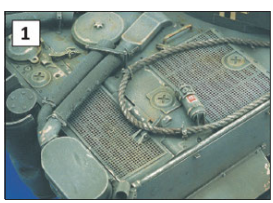
ROCHM MODEL

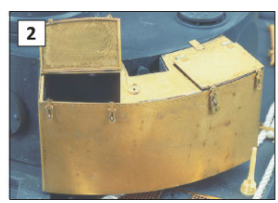
Rochm Model is the brainchild of modeller Sheng Hui whose work has appeared in a number of books in the TankCraft series. Initially specialising in detail sets in resin, photo-etched brass and aluminium for the Tiger I, the company moved onto the Tiger II and is now offering upgrade sets for the Panther and other tanks. These products offer exceptional detail and considering the quality are reasonably priced. Although the catalogue is heavily slanted towards Dragon Model kits, these details would be suitable for most 1/35 scale models.

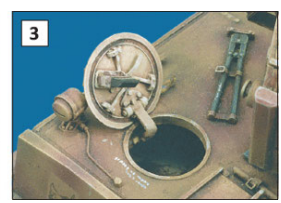


ROYAL MODELS

This Italian company has been producing high quality accessories and aftermarket parts since the early 1990s under the guidance of its founder, Roberto Reale. The catalogue includes complete upgrade sets in 1/35 scale for the early, mid and late production Tiger I and a limited number of sets in 1/72 and 1/48 scale. Royal Models also offers a number of realistic crew figures for the larger-scale models. Shown here are the Feifel air filters of the early production kits (1), turret stowage bin (2) and headlight, hatch interior detail and tools (3), all in 1/35 scale.





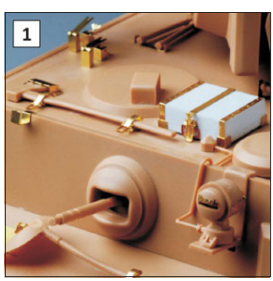


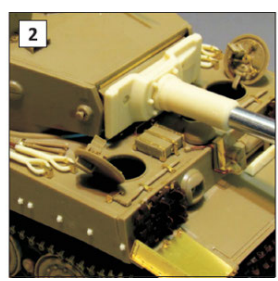
E.T. MODEL

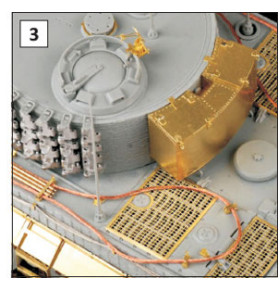
E.T. Model, a relatively new manufacturer from China, produce highly-detailed upgrade sets in 1/72 and 1/35 scale in brass, aluminium and resin. Shown below, from left to right, are the etched-brass Tiger I stowage box in 1/35 scale and parts of the upgrade sets for the 1/72 scale Dragon Models late production Tiger. Most sets are designed, according to the company, to fit specific kits but some, for example the stowage bin at left, are referred to as universal. The company also offers comprehensive detail stes for the initial and late production versions in 1 /35 scale.

VOYAGER

Voyager have been manufacturing highly-detailed and comprehensive upgrade sets for scale models since 2003 with the release of their first products chiefly aimed at 1/35 scale armour modellers. The company also produces turned aluminium barrels with muzzle brakes for both the late and early 8.8cm guns of the Tiger in 1/35 scale. Shown here are upgrade sets for the Trumpeter mid production Tiger (1), the Tamiya late production version (2) and the Dragon mid production tank (3).



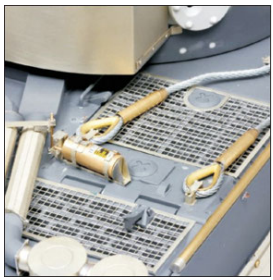
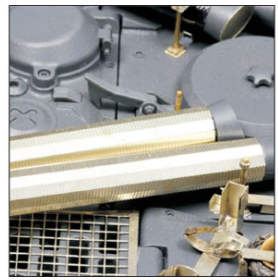




ABER

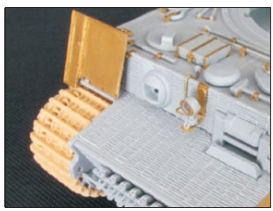
This Polish company has been manufacturing and selling upgrade sets since 1995 working in photo-etched brass, milled aluminium and brass, stainless steel and even wood. A full list of the

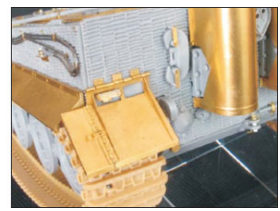
accessories made specifically for the Tiger in all scales would be far too large to reproduce in this book and the reader can find the company's contact details on page 64. The images shown here are, from left to right, part of the 1/35 scale upgrade set for the early production Tigers that served in Tunisia, photo-etched brass details for the Feifel air filters and the early pattern muzzle brake for the L/56 gun.

GRIFFON

Based in China, this company produces a large range of photo-etched brass sets for the Tiger I in 1/35 scale to fit most manufacturers' kits, although they do recommend Tamiya and Dragon. Shown here are upgrade sets for the mid and late production Tiger I.





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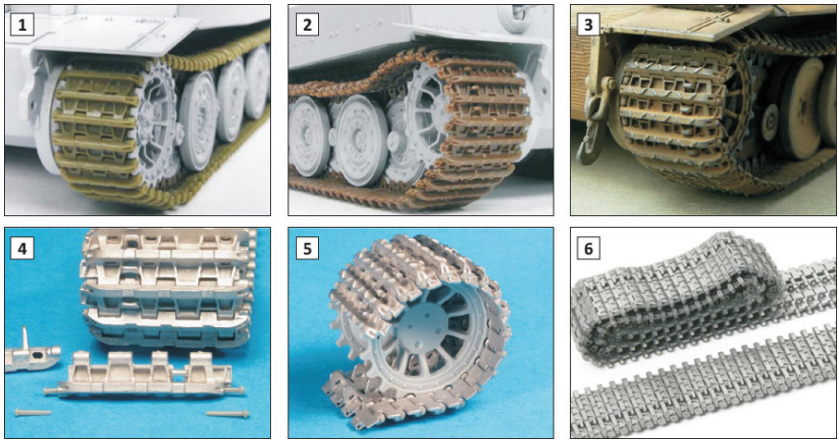
RB MODEL

RB Model from Poland produce a range of milled aluminium and brass gun barrels and resin accessories for 1/35, 1/48 and 1/72 scale armour models. Shown here below, from left to right, are the 8.8cm KwK 36 L/56 gun for the early model Tiger 1, the later muzzle brake fitted to some tanks from April 1944 and beautifully-detailed 8.8cm ammunition in 1/72 scale.

AFTERMARKET TRACKS

Most plastic kits today contain realistic tracks made from a form of vinyl which, unlike the older types, can be glued together, or hard plastic individual links. Nevertheless, there are many modellers who wish for the highest level of detail and realism possible and consequently the number of quality aftermarket products available seems to have increased in recent years, despite the extra expense and work required. In order to operate properly, motorised models require workable tracks made up from individual links held together by pins, as were the full size items.



1.AFV Club early patterrt tracks In 1/35 scale. 2. AFV Club later model tracks In 1/35 scale. 3. Modelkasten later pattern 1/35 scale Tiger tracks In hard plastic. 4. Master Club early tracks. 5. Master Club later tracks. Both In 1/35 scale. 6. Tamiya 1/16 scale workable tracks In white metal.

THE TIGER UNITS

Schwere Panzer-Abteilung 501. The battalion was formed in early May 1942 with two companies raised from schwere Panzer-Kompanien 501 and 502 and also from Panzer-Ersatz-Abteilung 1, a replacement and training unit stationed at Erfurt in Germany, and from Panzerschiess-schule Putlos, a tank gunnery school (1).

By October the battalion commander, Major Hans-Georg Lueder, reported that twenty Tigers and sixteen Pzkpfw III tanks were on hand and in the same month these vehicles were prepared for operations in a tropical climate. On 10 November 1943 the battalion's first company left Germany, and travelling by rail through Italy, the tanks were prepared for transportation by sea to Tunisia while the crews were flown in on Junkers 52 transport aircraft, the first units arriving towards the end of the month. The platoons of the second company that had completed their training were sent to southern France.

On 23 November 1943 the first three Tigers disembarked at Bizerta, 80 kilometres north-east of Tunis, after making the crossing from Italy. The Tigers were held in reserve until 1 December when a number of tanks of 1.Kompanie under Hauptmann Nikolai Graf von Nolde attacked US Army positions near Djedieda where the Germans claimed to have destroyed nine American tanks. Meanwhile a number of tanks of schwere Panzer-Abteilung 501 were able to stop an Allied breakthrough at Terbourba on 4 December 1943. Two days later the three Tigers which had taken part in the action at Djedieda advanced past Al-Battan without once firing their guns. On 9 December 1943 Major Lueder reported that seven Tigers and five Pzkpfw III tanks were on hand (2).

On the same day the platoons of 2.Kompanie which had originally been sent to France, had made their way to Sicily while the company's remaining tanks and crews left Fallingbostel in Germany for Italy. In mid-January 1943 the serviceable Tigers of 1.Kompanie were formed into three groups, the first two supporting elements of Gebirgsjager-Regiment 756, while the third group, under Major Lueder, was attached to Panzergrenadier-Regiment 69. In the ensuing combat Lueder claimed that twenty-six enemy guns were destroyed and a number of American halftracks captured which were used by the Panzergrenadiers during the remainder of the campaign (3).

On 20 January the tanks of 2.Kompanie went into action for the first time in an attack along the Robaa road, known today as Bargou, and on the following day a British counterattack made against the positions of 1.Kompanie at the Ousseltla-Kairouan crossing was beaten back by the Tigers of Leutnant Vermehren's platoon.

In late January the battalion took part in Operations Eilbote I and Eilbote II where the largest concentration of vehicles to date, eleven Tigers and fourteen Panzer III tanks, were unable to break through the British defensive lines around Kairouan. The first company now withdrew towards the north to As-Subayhah where the tanks were attached to 10.Panzer-Division for Operation Frühlingswind, an attack through the Faïd Pass north of Sidi Bouzid. The Tigers were able to scatter the enemy units holding the crossing at Sidi Bouzid but lost the recently-appointed commanding officer of 1.Kompanie, Oberleutnant Schmidt-Bornagius, in the process. On 17 February the Tigers of the first company were concentrated in the Pichon area but were ordered to withdraw to Mograne near Zaghouan when a planned attack was cancelled. By 26 February 1943 the second company, which had remained in the Pont du Fahs area facing the British, rejoined the battalion's first company and both were now formally integrated into Panzer-Regiment 7 of 10.Panzer-

Division. Reinforced by fifteen Pzkpfw IV tanks, the two companies took part in Operation Ochsenkopf, an attack towards Beja. The Germans were able to capture Sidi N'Sir but were held up in front of Djebel Ben Drar, along the Beja to Mateur road east of the village of Zirba. An extensive minefield added to their problems and the Tiger of Leutnant Vermehren was lost here. Despite further attacks the Germans could make no headway and in the savage fighting here Major Lueder, his battalion adjutant Oberleutnant Stockhammer, Oberleutnant Kodar and Oberleutnant Hartmann and were all wounded (1). On 1 March all offensive operations were halted and the two companies reported that from a total of eleven Tigers on hand just one vehicle was considered combat ready. On 17 March the remnants of the battalion, including the eleven Tigers, were attached to schwere Panzer-Abteilung 504 which had arrived in Tunisia only days before.

Notes

1. It was originally intended that this battalion be equipped with the Tiger (P), which was at that time under development by Porsche and a number of drivers were trained on the prototype tanks. This delayed the battalion's training as the Porsche design was eventually dropped in favour of Henschel's proposal and the first two production Tigers were not received until 30 August 1942.

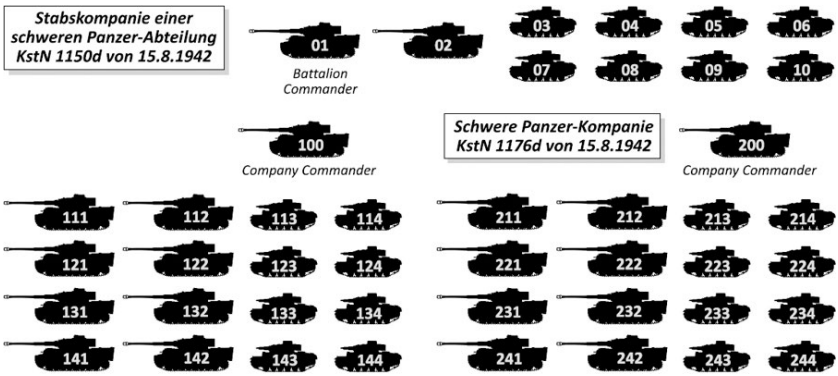
2. Lueder had been commanding a Kampfgruppe made up from elements of Panzer-Abteilung 190 and only rejoined the battalion at this time.

3. One of these vehicles was later photographed being ferried to Sicily.

Captured in May 1943 this early production Tiger I resides today at Fort Benning in the United States. Inset is an enlarged view of the hull front showing the battalion's unit insignia. Other images of this tank clearly show an 8.Kompanie number overpainted on the turret side. This tank is also discussed on page 20

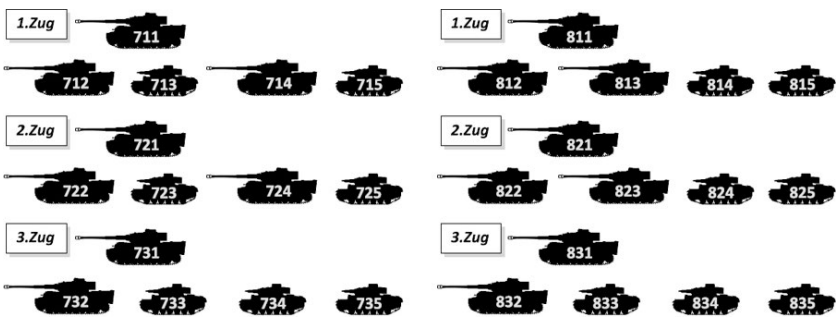
SCHWERE PANZER-ABTEILUNG 501. GERMANY, OCTOBER 1942.

All units of the German Army were organised using detailed tables of establishment known as Kriegsstärkenachweisung, usually abbreviated to KstN. The first Tiger battalions were created using Stabskompanie einer schweren Panzer-Abteilung KstN 1150b for the headquarters and schwere Panzer-Kompanie KstN 1176 for the tank companies. Both were dated 25 April 1942. The establishment shown below was introduced in August 1942 but schwere Panzer-Abteilung 501 was not instructed to enact it until the following October. Note that this unit has two extra Pzkpfw III tanks with the battalion headquarters. Not shown here, for reasons of space, is the Werkstatt-Kompanie.



7 AND 8.KOMPANIE, PANZER-REGIMENT 7.TUNISIA, MARCH 1943.

On 26 February 1943 the remaining tanks of schwere Panzer-Abteilung 501 were incorporated into Panzer-Regiment 7 of 10. Panzer-Division as the regiment's seventh and eighth companies. The turret numbers were altered as shown here but were applied in the same style and size and, in the case of 8.Kompanie, repeated on the rear surface of the turret stowage box.



Notes

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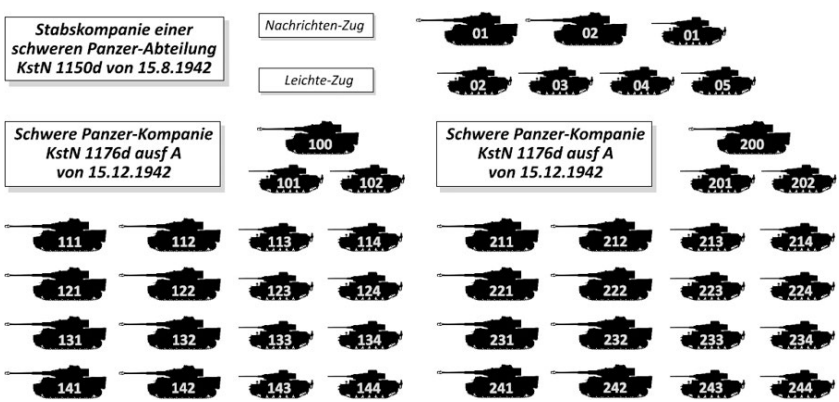
1. Oberleutnant Kodar commanded the light company while Hartmann had taken command of 1.Kompanie when Schmidt-Bornagius was killed. Leutnant Vermehren was killed when his tank was disabled by a mine.

SCHWERE PANZER-ABTEILUNG 504. TUNISIA, FEBRUARY 1943.

This battalion was formed during early 1943 using Stab Panzer-Abteilung KstN 1107 dated 1 November 1941, Stabskompanie KstN 1150b and Werkstatt KstN 1187b both dated 25 April 1942. The companies were created using schwere Panzer-Kompanie KstN 1176d dated 15 August 1942. On 17 January 1943 the battalion's organisation was revised to that shown below. Again, the Werkstatt-Kompanie has been omitted.



Schwere Panzer-Abteilung 504. Formed in the first weeks of 1943 the battalion's personnel were taken from Panzer-Regiment 1 and Panzer-Regiment 35. Commanded by Major August Seidensticker, who had served with Panzer-Regiment 31 in Russia, the battalion was originally made up of two companies.

Starting from 17 February the tanks were organised to fight in a tropical climate and exactly ten days later began leaving Germany for Trapani in Italy. By Friday, 12 March 1943 the first three tanks from 1.Kompanie had arrived in Tunisia and the following Wednesday eleven Tigers from schwere Panzer-Abteilung 501, which was at that time without a commanding officer, were attached to the battalion.

The company's first combat took place west of Maknassy where an attempted breakthrough to the coast by the Americans was halted with Major Seidensticker claiming that thirty-five enemy tanks had been destroyed. The battalion spent the remainder of March fighting in this area supporting the infantrymen of the Hermann Goring division and in early April defended the German positions around Enfidah. On 16 April 1943 the last of the battalion's Tigers was unloaded at Bizerta bringing the total on hand to twenty-one. During the next weeks the Tigers supported the paratroopers of Fallschirmjager-Regiment 5 in what came to be known as the Battle of Longstop Hill. On 26 April 1943, six Tigers were rushed to the north to support 10.Panzer-Division and in a single action along the southern edge of the Medjerda Valley managed to destroy more than twenty US Sherman tanks (1). In early May 1943 the battalion, along with most of the surviving armoured units in Tunisia, was attached to Kampfgruppe Irkens and fought against the British around Medjez el Bab, withdrawing towards Tunis (2).

It was at this time, although the exact date is uncertain, that Major Seidensticker was wounded and taken prisoner. On 12 May 1943, with the surrender of the Axis forces in Tunisia, the remnants of the two Tiger battalions destroyed the last of their tanks.

The battalion's second company, which had also left Germany in early March, had been waiting at Paceco, east of Palermo, for

transportation to Tunisia but the deteriorating situation in North Africa convinced the German command that the Tigers should remain in Sicily. The company's nine tanks were initially placed under the orders of Panzer-Abteilung 215 of 15.Panzergrenadier-Division and a further eight Tigers were delivered by early June. Just one day before the invasion began the company was attached to Panzer-Division Hermann Goring. Of the nine Pzkpfw III ausf L tanks that the battalion had brought to Sicily, seven were handed over to Panzer-Abteilung 215 and the battalion would fight the coming battle with its Tigers only.

The commander of Panzer-Abteilung 215, Major Kurt Gierga, reported that on leaving the battalion the company was quickly deprived of most its recovery assets, including the movable crane necessary to lift the tank's heavy turret. This single act ensured that most of the mechanically fragile Tigers would fall victim to the rugged terrain in which they were now expected to fight. In fact, just three of the company's sixteen tank losses could be attributed to enemy action. In addition, the commander of Panzer-Regiment Hermann Goring neglected to arrange transport for replacement parts and a large quantity of ammunition, all of which fell into enemy hands (1).

The company reported that fifteen tanks were combat-ready when the fighting began and in the early battles along the southern coast lost nine Tigers, although six of those were abandoned due to the lack of any towing vehicles. Two more tanks were lost on 14 July 1943 and the last four took part in an attack at Ali Marina where three Tigers had to be destroyed by their own crews. The company's only surviving tank, number 222 commanded by Leutnant Steuber, was ferried to the mainland on Thursday, 17 August 1943. Moving up the Calabrian coast on its own tracks the tank very quickly developed problems with its suspension and was destroyed.

By the end of 1943 the battalion had been completely rebuilt with

two Tiger companies and a third company formed from Panzer-Kompanie (Funklenk) 314. The company was equipped with specially adapted Tiger 1 tanks which directed a number of Borgward BIV remote-control demolition vehicles. In early June 1944 the battalion returned to Italy and by the end of the month was in action around Grosseto. From early July the battalion was involved in the fighting withdrawal to the River Po, supporting elements of 24.Panzergrenadier-Division and the Sturmgeschutz III assault guns 16.SS-Panzergrenadier-Division.

During much of August and September the battalion's second and third companies were rested and moved, by stages, to the Adriatic coast while the first company was employed as infantry in anti-partisan operations and finally, on 14 September, transferred to Germany to begin their training on the Tiger II. The remaining companies spent the rest of the year fighting in the defensive positions between the Savio and Sentano Rivers, employed in platoons or sometimes single tanks. The remnants of the battalion remained in north-eastern Italy, many of the crews fighting as infantry, until the last Tiger was lost on 28 April 1945. Five days later the survivors surrendered to the Americans.

Notes

1. Accounts vary on the number of Tigers involved and there may have been as many as eight. For the initiative and courage he had exhibited here Major Seidensticker was awarded the Ritterkreuz, the only soldier of the battalion to receive the medal for actions in North Africa.

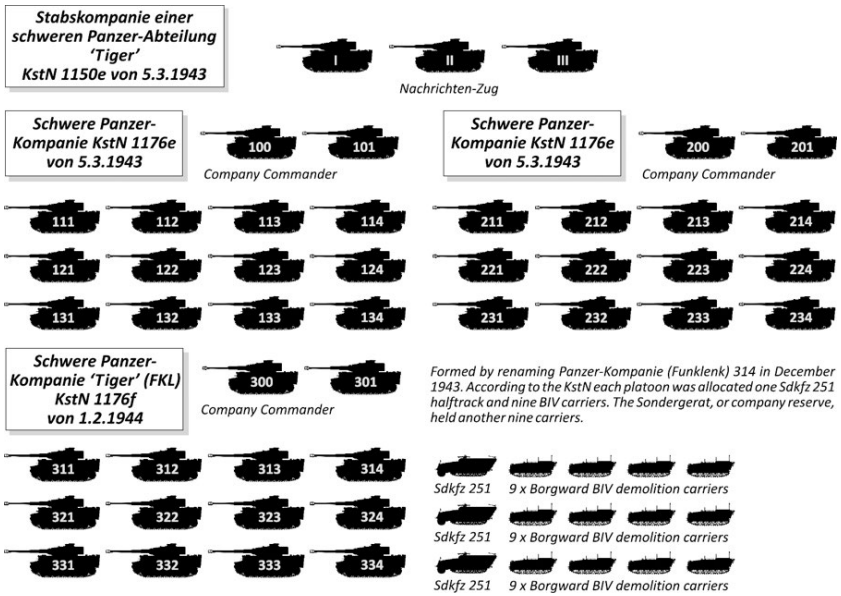
2. In these battles the Tigers claimed to have destroyed over ninety enemy tanks for the loss of a single vehicle which ran out of fuel and had to be destroyed.

Notes

1. Major Geirga's claim that approximately eighty tons of 8.8cm ammunition was lost is surely an exaggeration representing as it does over 8,000 rounds.

SCHWERE PANZER-ABTEILUNG 504. ITALY, APRIL 1944

By April 1943 the existing Tiger battalions had all been reorganised to contain three companies, each made up of three platoons or Zuge, as shown here. In either late 1943 or early 1944 Panzer-Kompanie (Funklenk) 314, which was equipped with Borgward BIV Sprengstofftrager remote-control demolition vehicles, was incorporated into the battalion as the third company. Each platoon controlled nine BIV carriers with a further nine in reserve, although this often varied in praactice. Note that although KstN 1176f authorised three Tigers for the Funklenk company headquarters this battalion appears to have had two. As with all the diagrams in the section the turret numbers depicted here are those actually used by the battalion and examples can been seen in the Camouflage and Markings section.



Schwere Panzer-Abteilung 508. Formed in late 1943 from parts of Panzer-Regiment 8 and Panzer-Abteilung 190 the battalion was commanded by Major Helmut Erich Hudel who had served with 10.Panzer-Division in both Russia and North Africa. The battalion spent most of December 1943 in training at Truppenubungsplatz Mailly-le-Camp in France were Panzer-Kompanie (Funklenk) 313 was temporarily attached. In early February 1944 the battalion was sent to Italy, travelling from Ficulle via Rome on their own tracks, and reached Aprilia where, from 16 February 1944, the Tigers fought in the battles for the Anzio beachhead, at first supporting 26.Panzer-Division.

On 19 February Panzer-Kompanie (Funklenk) 313 was formally absorbed by the battalion as its third company and on the next day a company of Elefant tank destroyers from schwere Panzeijager-Abteilung 653 was placed under Major Hudel's command (1).

On 3 March the Tigers of schwere Panzer-Kompanie Meyer were incorporated into the battalion with most going to the first company and over the next two days the tanks were withdraw to Rome. Later that month the battalion returned to Aprilia and the Anzio beachhead at times being used as artillery in indirect fire roles. On 23 May 1944 the tigers took part in a counterattack near Cisterna, destroying fifteen American tanks before withdrawing into Rome. This success was soured, however, by the loss of seven tanks near Cori, due to a lack of fuel, and twelve more during the following days because of mechanical failures. Hitler was incensed and Major Hudel was recalled to Germany and replaced by Major Joachim Stelter (2).

The battalion's serviceable tanks were all concentrated in 1.Kompanie and the remaining crews were organised into tank hunting teams. The battalion now took part in the general withdrawal to the Trasimene Line and fighting through small towns and villages a number of Tigers were lost when they either fell through bridges or into the cellars of ruined houses. On 1 August the battalion reported that just fourteen tanks were considered combat-ready and the second and third companies were amalgamated. On 4 September 1944 most of the personnel of 2.Kompanie were transferred to Germany and did not return to the Italian Front. After resting in Bologna the battalion was moved to Cesena, about 70 kilometres to the southeast, in anticipation of a major British offensive, reporting on 1 October that fifteen operational Tigers were on hand.

On 20 October the last of the Borgward demolition carriers were returned to Germany to be joined by the rest of 3.Kompanie at the end of November. By the end of December some replacement crews had arrived but the battalion received no new tanks. In January 1945 the Tigers saw action near Faenza and Solarolo, on the Bologna to San Marino road, but the terrain limited their usefulness and many were used in indirect fire roles or as artillery observation vehicles.

On 12 February 1945 the last fifteen Tigers and a single Bergepanther were handed over to schwere Panzer-Abteilung 504 and the survivors of the battalion were transferred to Germany.

Notes

1. The Elefants are last mentioned on 16 May 1944 when they supported an attack made by Kampfgruppe Hinz near Pienza with an unknown number of the battalion's Tigers. In addition to these vehicles the battalion had converted two captured Sherman tanks into recovery vehicles by removing their turrets.

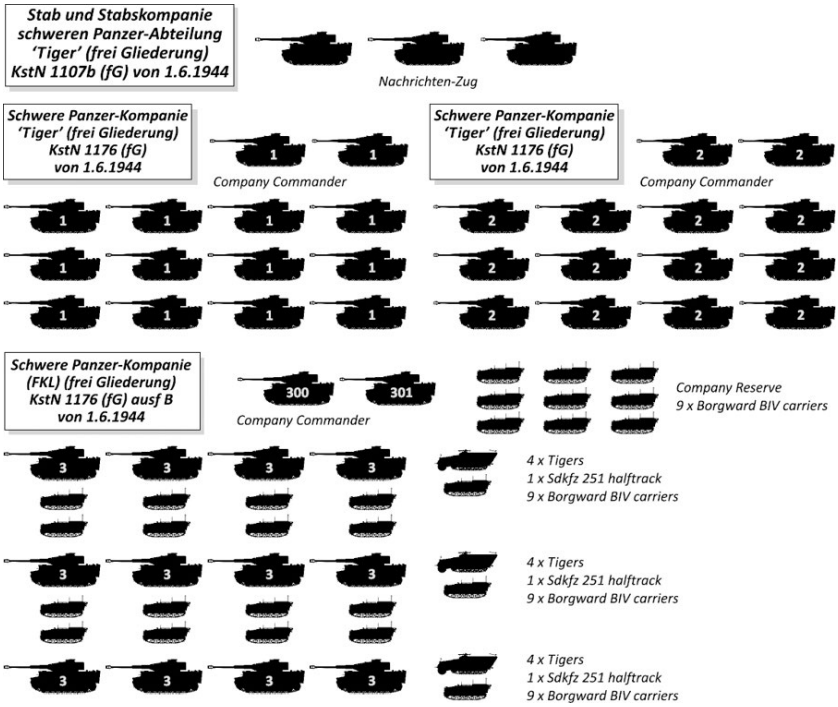
2. Major Stelter did not actually reach his command until 22 August 1944.

A mid production Tiger I of schwere Panzer-Abteilung 508 photographed

near Anzio in 1944. Note the opened gun travel lock on the top edge of the hull, introduced into production from November 1943, and the diamond-shaped starter alignment plate situated between the openings for the exhausts. The latter has the offset hole required for the Maybach HL 230 P45 engine installed from May 1942.

SCHWERE PANZER-ABTEILUNG 'TIGER' FUNKLENK. JUNE 1944.

In June 1944 new Kreigsstarkenachweisungen were issued for use by Tiger battalions that were at that time being formed, or for existing formations when authorised. These changes were introduced at a time when the German army was implementing the frei Gieiderung structures which removed transport and support units from companies and concentrated them at battalion or higher command level. The June 1944 KstN were also intended to be used for units equipped with the Tiger I or Tiger II. It is not known for certain ifschwere Panzer-Abteilung 508 was affected by these changes but I have used the battalion's numbering system and organisation here.



A column of Borgward BIV schwerer Ladungsträger photographed in 1943. These are probably ausf A models, the most common version, with the radio aerial situated behind and to the left of the driver's position. The later BIV ausf C was longer, with the driver's seat moved to the left-hand side. The location here is in fact Russia at around the

time of Operation Citadel but this image does give a good impression of these vehicles in action.

Tiger number 8 of schwere Panzer-Kompanie Meyer. The tank's name, Strolch, is clearly visible here and can be roughly translated as a vagabond or ne'r do well. Note also the company's unit insignia painted onto the lower hull front. This tank is also shown on page 24.

Schwere Panzer-Kompanie Meyer. Formed by an order of 26 July 1943 from parts of Panzer-Ersatz-und Ausbildungs-Abteilung 500, a training and replacement unit based at Paderbom north-west of Kassel in Germany, this formation was commanded by Oberleutnant Hans-Gert Meyer until Hauptmann Hans Schwebbach, an experienced tank commander who had served with Panzer-Regiment 23 on the

Eastern Front, was able to join the company.

Equipped with eight early production Tiger I tanks the company received orders to move to Italy and travelled by rail as far as Innsbruck and crossed the Brenner Pass on their own tracks on 31 July 1943. The company's first action took place on 8 August when four tanks supported Reichsgrenadier-Regiment 132 in disarming a number of Italian formations. In early October the company moved to Borgoforte, on the Po River south of Mantua, and at the beginning of November schwere Panzer-Kompanie Meyer was transferred to the area between Tortona and Alessandria. Here the company took over the repair and maintenance facilities that had been set up by Tigers of SS-Panzer-Regiment 1 during their brief stay in Italy. Photographic evidence would suggest that the tanks received their camouflage, individual numbers and unit insignia at this time (1).

By 20 November the company had moved to the south-east of Modena, along the road to Bologna, and within a week was ordered to move further south towards Rome. It was at this time that Hauptmann Schwebbach arrived to take command of the company (2). On 22 January 1944, in response to the Allied landings at Anzio, the company was moved into an assembly area near Pavona, sheltering in the olive groves around the town. Preparing his men for an immediate assault Schwebbach, to his surprise, was ordered to cancel the attack at the last moment and on the following day the tanks were ordered to withdraw to Procula, about 10 kilometres north of Aprilia on the Via Pontina Vecchia. Advancing under cover of darkness the company supported the tanks of Panzer-Abteilung 103 in a limited assault near Aprilia on 26 January 1944 which failed to break the Allied lines.

During this attack the company commander's tank was hit several times and disabled, one shot striking the commander's cupola and killing Hauptmann Schwebbach instantly (1). With Oberleutnant

Meyer once again in command, the Tigers withdrew towards the north-east to Campoleone and remained there until the end of the month. During early February the company was again in action in the area north of Aprilia and supported an attack made by Panzer-Abteilung 190. On 10 February 1944 one Tiger was lost in an Allied aerial attack and on the following day the remaining tanks were withdrawn to Ceccignola, today a suburb on the southern edge of Rome, for long-overdue maintenance, Meyer reporting that none of the Tigers were combat-ready. From Sunday, 13 February the company was involved in training with the newly arrived schwere Panzer-Abteilung 508, commanded by Major Helmut Hudel, and on the following Wednesday the two units co-operated in a series of attacks around Cistema which continued until the end of the month. On 3 March 1944 the remaining tanks of schwere Panzer-Kompanie Meyer were permanently attached to Major Hudel's battalion, most going to the first company. Oberleutnant Meyer was appointed as the battalion's adjutant.

Notes

1. The unit insignia was supposed iy inspired by Oberieutnant Meyer's Baitic origins but it is cioser in design to the Teutonic Cross than the Baltenkreuz which is the title used in most accounts. Examples of the camouflage and markings can be seen on pages 23 and 24.

2. Until the Hauptmann's death in January the company was referred to as Tigergruppe Schwebbach.

SS-Panzer-Regiment 1. The first Waffen-SS heavy tank company was formed in November 1942 from elements of SS-Panzer-Regiment 1.

It was originally intended that this would form the nucleus of a Tiger battalion but due to the requests of the Waffen-SS divisional commanders it was decided that each Panzer regiment would have its own heavy company. By mid-1943 the Tiger tanks of SS-Panzer-Regiment Leibstandarte SS Adolf Hitler had been concentrated in the thirteenth company (2). On 26 July 1943, after months of heavy fighting, the company's remaining tanks were handed over to the Das Reich division and the crews, with their wheeled transport, were withdrawn to rest areas in Poland. Shortly after the troops reached Gorlowka, in modern-day Ukraine, orders were received to proceed to Italy and after a lengthy journey the complete company was assembled by 13 August 1943 near Reggio Emilia, north-west of Bologna. Within days new tanks were being delivered with a total of twenty-seven Tigers, including two command versions, arriving by 25 August. This was enough to equip two provisional companies, presumably of thirteen tanks each with the two command tanks allocated to the headquarters. The tanks were early production versions with the brackets to hold spare track links on the turret sides introduced in April 1943 and a typical example can be seen on page 22.

During the last days of August a number of replacement personnel arrived and the organisation and training began for what would become schwere SS-Panzer-Abteilung 101. Between 30 August and 9 September the company was placed on high alert several times and expected to be sent to the front but the tank crews were used only as infantry to disarm Italian units in the Reggio Emilia area. During the next weeks the company was mostly involved in training exercises and award ceremonies and on 27 October 1943 the tanks were loaded onto rail cars for transport to Russia. While the loading was taking place Untersturmführer Stich managed to come into contact with an overhead electrical wire and was killed, becoming what was almost certainly the only fatality suffered by the company in Italy (3).

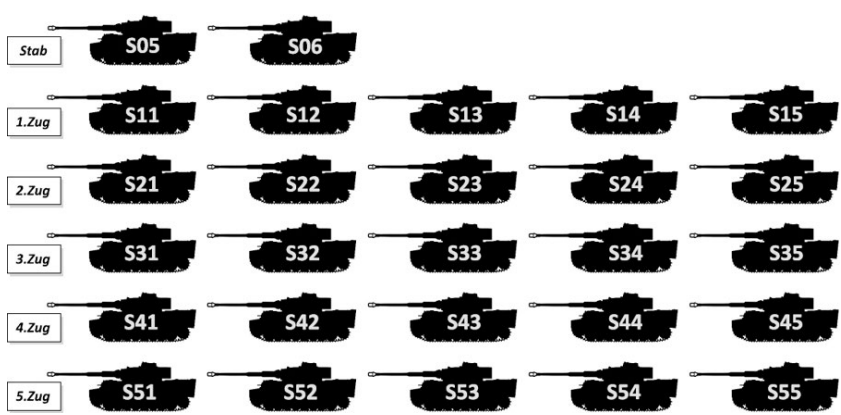
Notes

1. Schneider states that this was Tiger number 2, however, most accounts agree that Schwebbach's tank was numbered 1 and several ciear photos exist of this vehicle after it was abandoned and the recovered by the Americans.

2. On 22 October the titie was changed to SS-Panzer-Regiment 1. The suffix Leibstandarte SS Adoif Hitier was applied to all the division organic units.

3. The history of this unit and aiso schwere Panzer-Abteilung 501 and their service on the Eastern Front is covered in more detail in the first book in this series Tiger I and Tiger II: Tanks of the German Army and Waffen-SS Eastern Front 1944.

13.KOMPANIE, 55-PANZER-REGIMENT 1, NOVEMBER 1943



The two-company structure which had been adopted in August 1943 was dropped before the division returned to Russia and the tanks were simply numbered as shown here, with an S prefix denoting schwere or heavy.

TECHNICAL DETAILS AND MODIFICATIONS

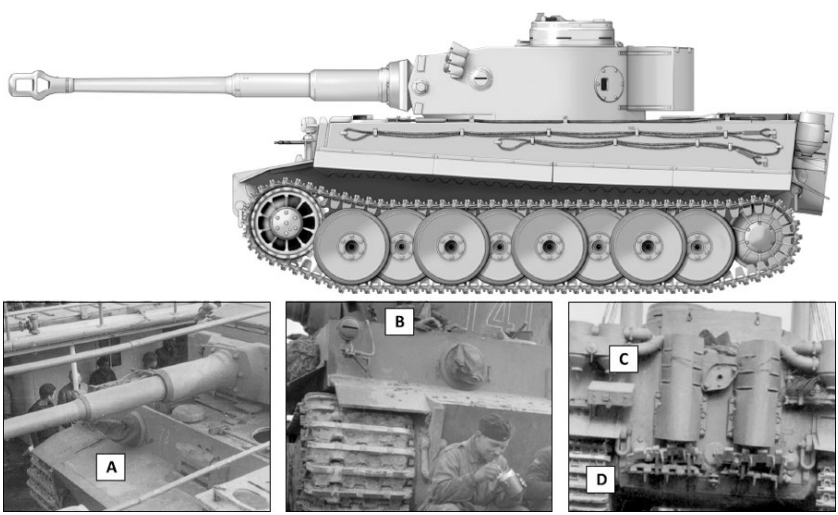
In August 1942 the first production Tiger tanks to see combat left the assembly lines at the massive Henschel und Sohn plant at Kassel in western Germany. Although just eight tanks were completed during the month, four of those were sent to 1.Kompanie, schwere Panzer-Abteilung 501 operating near Leningrad and despite the fact that all four were disabled during their first action, they were all recovered and repaired. Significantly, their armour had stood up to the most powerful Russian anti-tank guns. By the end of the year production had increased to almost forty tanks a month and reached a peak in April 1944 when 104 vehicles were completed.

The fully-assembled chassis, incorporating the Panzerwanne or armoured hull and the wheels, were identified by a unique number referred to as a Fahrgestellnummer (Fgst) and the Tiger I series began with 250001. The turrets were manufactured by Wegmann & Co., and transported to the Henschel plant, just over a kilometre away, where the final assembly took place. Each turret was also identified by an individual number, here referred to as a Turm Nr, and these simply began at 1. The Tiger I engines were produced by Maybach of Friedrichshafen and the main guns, the famous 8.8cm KwK 36 L/56, were assembled by Dortmund Hoerder Hüttenverein and R. Wolf AG at their Magdeberg-Buchau factory. A total of 1,514 of these guns had been completed and accepted by the Heereswaffenamt by July 1944.

The first production models were referred to as Panzerkampfwagen VIH, with the ordnance designation SdKfz 182, and the title Tiger I is first encountered in official documentation in October 1942, probably to differentiate the tank from the Tiger II project which was already in the early planning stages. On 27 February 1943 a

personal order from Hitler directed that the tank should henceforth be referred to as the Panzerkampfwagen Tiger ausf E SdKfz 181 and this designation remained in force until the end of the war. As a matter of interest the tank is referred to as Pz.Kpfw. Tiger (8,8 cm L/56) (Sd.Kfz. 181) in Kriegsstarkenachweisung (KStN) 1176e, the organisational chart issued by the OKH on 5 March 1943.

The modifications listed here by date are those carried out during production and although some additions and ad-hoc solutions made by units in the field are mentioned, most are shown and discussed in the Camouflage and Markings section, largely for reasons of space. Similarly, as the purpose of this chapter is to enable the reader to confidently determine when a particular tank was manufactured, the many internal changes are for the most part not listed. In addition many technical details of the prototypes fall outside the time frame of this study and are also not included. As a matter of convenience the terms early, mid and late production are used today by researchers and modellers alike and identifying features are listed for each. Further technical information can also be found in the first book in the TankCraft series Tiger I and Tiger II Tanks: German Army and Waffen-SS Eastern Front 1944.



Tiger I, early production model completed October or November 1943. This tank features the early drive sprocket which was dropped from production in April 1943 and the dischargers for the smoke candles or Nebelwurfgeräte on the turret side introduced from August 1942. This tank is one of the so-called African Tigers with field modified front fenders (A), headlights fitted to the hull front by a metal bracket (B), rounded rear mudguards, perforated exhaust covers (C) and spare tracks on the hull rear (D). All were fitted with the Feifel air filtering system which was introduced into production from October 1942.

August 1942. The driver's twin periscope was dropped from production and the two holes drilled in the hull glacis were welded shut. A hinged flap was installed on the top of each muffler to keep out water during submerged fording and retaining hooks were added to the engine louvres. With some exceptions the small Pzkpfw III stowage bins were replaced by a new, larger bin. Fasteners were welded to the rear deck to hold five gun cleaning rods and two wrecking bars. A storage tube for a spare antenna was mounted along the outside edge of the hull at the right rear. Holes were cut into the glacis plate at each corner to accommodate a canvas cover intended to disguise the tank as a truck. It is not known is these were ever used.

September 1942. The two toggle bolts on the machine-gun mount were no longer installed. From Fgst Nr.250011 fasteners were installed on the left hull side to hold the track replacement cable. Fasteners were also added to hold a hammer, spade, axe, wooden jack block, wire cutters, a wrecking bar, two towing cables and a fire extinguisher on the rear deck. A 15-ton jack was fitted vertically to the rear hull.

October 1942. Smoke candle dischargers, Nebelwurfgerat, were

fitted on the turret sides towards the front (A). Mounting plates for the Fiefel air filters were incorporated into production (1). Beginning with Fgst Nr.250021, standardised Kgs 63/725/130 cross-country tracks were fitted to both sides (2). The rectangular convoy light was replaced by a cylindrical model and the antenna base on hull rear was removed. The position of the towing cables on the deck was reversed and the 15-ton jack was mounted horizontally. A long-handled shovel was fastened to the glacis.

November 1942. Sheet metal mudguards, sometimes referred to as track guards, were fitted to the hull sides and hinged fenders were added at the front. A crew compartment heater was installed but units operating in southern Russia removed them to avoid causing engine fires. A number of tanks were built with reinforced main gun mantlets (B).

December 1942. The sheet metal track guards were fitted in a straight line whereas previously they had followed the curve of the lower edge of the hull side. An escape hatch was fitted to the right rear turret side in place of the pistol port (3 and C). From Fgst Nr.250055 the hull sides were extended at the front. A stowage box for the track tools was fitted to the hull rear. Mounts for five S-Mine dischargers were fixed to the hull roof, although the dischargers themselves were not available until January, and the antenna stowage tube was moved to accommodate the S-Mine mount. From Fgst Nr.250053, reinforcing rings were added to the holes for the canvas camouflage cover.

January 1943. Ninety Tigers were assembled with gun mantlets built without the reinforcement mentioned earlier. A sheet metal guard or deflector was fitted to the open sides of the mufflers to conceal the distinctive glow given off by the exhausts. Beginning with Fgst Nr.250082 five S-Mine dischargers were fitted on the hull roof with one at each comer and one mounted halfway along the left side (4).

Febmary 1943. From Fgst Nr.250122 the number of gun cleaning rods is increased to six. The 18-bolt roadwheels are incorporated into production.

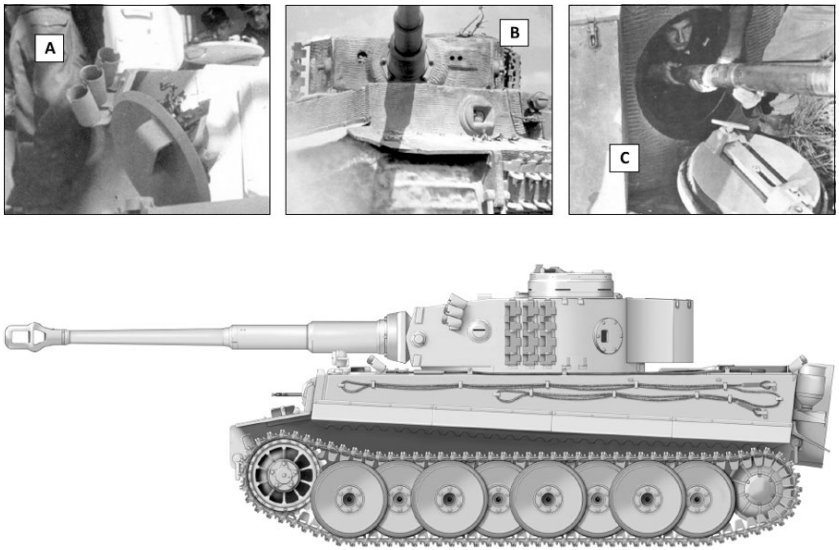
Notes

1. The filters themselves were not fitted until November.

2. The first twenty Tigers were fitted with left and right cross-country tracks.

3. It is believed that the shape of the first production hatches conformed to the curvature of the turret sides, however, by July 1943 a flat disc shape was in use.

4. The fifth discharger was not fitted to the Panzerbefehlswagen variant.



Tiger I, early production model completed May 1943. This tank features the periscope for the loader and its armoured cover on the turret roof, the new drive sprocket which was machined flat, the dischargersfor the smoke candles on the turret side and the S-Mine dischargers on the hull, the spare tracks and their brackets on the hull side and the modified Feifel air filter system. Not visible on our drawing is the reinforced gun mantlet Introduced as early as November 1942, the triangular access port on the rear deck, the cast louvres on the hull rear deck, which from April 1943 were both identical, and the second hole in the starter alignment plate Introduced with the HL 230 P4S engine.

March 1943. A fixed loader's periscope, protected by an armoured cover, was installed on the turret roof beginning with Turm Nr. 184. Modified Feifel air filters were introduced and the cap over the ventilation riser on the rear deck was replaced by a triangular-shaped opening covered by a fiat plate held in place by three bolts.

April 1943. From Fgst Nr.251205 the hub of the drive sprocket was machined flat to allow the bolts with their reinforced tabs to be

better secured. Beginning in mid-April brackets for three spare track Links were mounted on the turret right side between the vision port and the escape hatch and five spare track links on the left side between the vision slit and the pistol port. In late April the links on the right side were reduced to two (1).

May 1943. A second hole in the alignment plate on the hull rear was introduced with the Maybach HL 230 P45 engine.

June 1943. Beginning with Turm Nr.286 the smoke candle dischargers, or Nebelwurfgerate, were deleted.

July 1943. From Turm Nr.391, mounted on Fgst Nr.250391, a redesigned turret was introduced. The commander's cupola was now made from a cast armoured ring fitted with seven periscopes, each with an armoured cover, and a hatch with a pivoting arm. On the first few cupolas, perhaps as many as thirty, the hatch swung towards the front (A) and was later redesigned to open towards the rear. A partial ring, welded to the tops of the periscope guards, acted as a track for the anti-aircraft machine-gun mount. A new loader's periscope was installed with a wider armoured cover and the loader's hatch was given a modified lock which could be adjusted from the outside. The exhaust fan on the turret roof was provided with a new armoured guard and moved from the rear of the turret roof to a position in front of the cupola directly above the gun breech. The large pistol port on the left turret rear was replaced by a simple plug. The fasteners for the track replacement cable were moved to new positions along the hull left side and a single headlight was placed at the top left corner of the hull front replacing the two headlights mounted at each comer.

Notes

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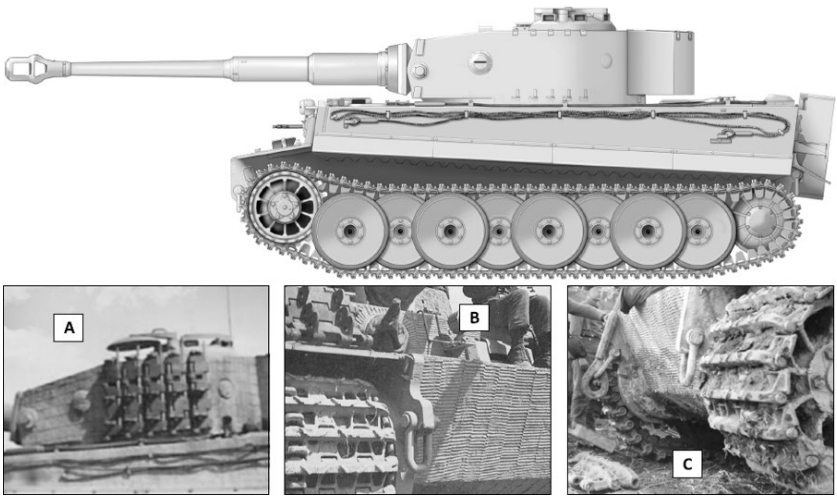
1. Interestingly It was initially planned to fix fifteen spare links around the hull sides but the introduction of the stowage bin meant this was no longer possible. At least two Tigers were photographed in Sicily with evidence of five sets of brackets on each side.



Tiger I, mid production model completed October 1943. The new turret features the simpilfied turret ring and cast cupola. The large pistol port on the turret side has been replaced by a plug and the turret vision ports now have a wider slit and lower profile. The loader's periscope has a wider armour guard and the smoke candle and S-Mine dischargers have been deleted.

A single headlight is mounted at the centre of the hull front plate and the ventilation fan has been moved from the rear of the turret roof to a point directly over the centre of the gun breech. Not visible on our drawing are the Gleitschulzpickein tracks and the starter crank handle which is now stowed by the antenna base.

August 1943. To simplify production all deep wading components were dropped. The vision slits on the turret sides were redesigned with a wider slit allowing for better all round vision and with a lower profile. Beginning with Fgst Nr.250461 redesigned fasteners to hold the traek replaeement cable were welded to the hull side. A thick paste eommercially known as Zimmerit was applied in a pattern of ridges to all vertieal surfaces that could be reached by a man of average height (B).

September 1943. Beginning with Fgst Nr.250496, large hooks, sometimes referred to as a 'C' clamps were mounted on the rear hull to the left of the exhaust guard and on the hull deek to the right of the driver's hatch.

October 1943. New tracks with Gleitschutzpickeln, or metal chevrons, were introduced from Fgst Nr.250570 (C). The Feifel air filters, together with the braekets for the hoses and ductwork, were diseontinued. The S-Mine dischargers on the hull were dropped from production. The outer disc on the loader's hatch was discontinued. Beginning with Fgst Nr.250570 the erank handle was moved to a position near the antenna. The track tool box on the left hull rear plate was diseontinued.

November 1943. Beginning with Fgst Nr.250635 and ending with Fgst Nr.250875, an external travel lock for the main gun was installed on the rear hull at the right eorner. Also during November eighteen Panzerbefelswagen command tanks were converted by having the base for the Stemantenna D covered by a metal plate and the aperture for the turret roof antenna plugged. The antenna base on the left side of the hull deck was retained and used for the FuG 5 radio.

December 1943. The single headlight was moved to the centre of

the front plate. The mounts for the Feifel air Biters were no longer attached.

January 1944. A 20-ton jack with new mount replaced the 15-ton model from Fgst Nr.250772. The fasteners and shovel on the glacis were dropped from production as was the turret pistol plug. Hull extensions at the front were notched to allow freer movement of the towing shackles and the hull extensions at the rear were also reshaped.

February 1944. Rubber-cushioned, steel-tired road wheels were introduced beginning with Fgst Nr.250822. The number of road wheels on each axle was decreased from three to two meaning that it was no longer necessary to remove the outer wheels for rail travel. At the same time a smaller diameter idler was introduced. An access port for the blowtorch with an oval shaped armoured cover was created on the tail plate below the armoured guard for the left muffler. A turret ring guard was welded to the deck beginning with Fgst Nr.250850 necessitating a rearranging of the tool stowage on the hull deck. From Fgst Nr.250875 a new U-shaped tow shackle was issued.

March 1944. A new 40mm-thick turret roof was installed from Fgst Nr.250991. The first versions were constructed from a single piece of armour plate, bent to slope downwards at the front, but from May 1944 the roof was made up of two pieces welded at the join directly behind the armour cover for the loader's periscope. The countersunk loader's hatch originally designed for the Tiger II was installed and the protective frame was dropped from production. The installation of the Nahverteidigungswaffe close-defence weapon, authorised in January, began.

April 1944. The T.Z.F.9c monocular gun sight replaced the T.Z.F.9b

binocular version. As a number of gun mantlets had been manufactured with two apertures before the order was received, the outermost was sealed with an armoured plug and welded shut. As the tanks were subsequently covered with Zimmerit, these plugs are almost impossible to discern in contemporary photographs. In an attempt at standardisation, the 8.8cm KwK36 L/56 guns of a number of tanks were fitted with a light weight muzzle brake designed for the 8.8cm KwK43 L/71 ofthe Tiger II.

May 1944. A wider track pin return plate was mounted on both sides of the hull above the idlers. Drainage slits were cut into the cast commander's cupola

June 1944. Three sockets were welded to the turret roof to support a 2-ton jib boom. This modification was ordered to be retrofitted to older models. From Fgst Nr.2521205 double locking strips, shared by two nuts, were introduced on the track tooth ring of the drive sprocket. This was made necessary by the differences in casting which did not always result in centred locations for securing the nuts.

In July and August 1944 the last fifty-four Tiger I tanks, numbered as Fgst Nr.251293 to Fgst Nr.251346, were assembled using thirty-two turrets which had been returned from combat units for major rebuilds and twenty-two new turrets. Modifications included the complete replacement of the turret roof with a 40mm-thick armour plate and a cast cupola ring was welded to the turret roof. The holes for the older style pistol port or the plug were covered and the new loader's hatch installed.

In June 1944 the possibility of installing poison gas detection equipment on the Tiger I was discussed and although it is unknown if this progressed beyond the planning stage the manufacture of

turrets continued well into August and as this modification was introduced on the Tiger II in July, it is therefore possible that poison gas detection panels were installed on the very last Tiger I tanks.

Notes

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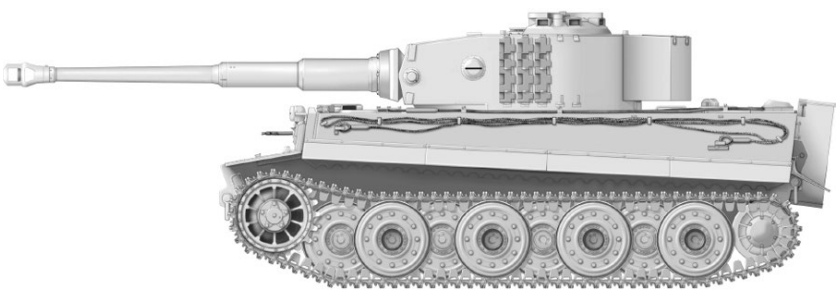
2. There is some debate about the date of Introduction with July and September also being given.

3. These were intended to enhance cross country running but also to preserve road surfaces.



Tiger I, late production model completed June 1944. These late production tanks can be easily identified by the steel-tired road wheels and notched hull extensions. Also shown here is the two-piece 40mm turret roof, the sockets for the 2-ton Jib boom. the lightweight muzzle brake and the smaller rear idler. Not visible In our drawing is the single aperture of the gun mantlet Introduced with the T.Z.F.9c gun sight, the turret ring guard, the Nahverteidigungswaffe close defence mortar, the countersunk loader's hatch, the drain slits cut Into the cupola and the changes to the escape hatch.

PANZER COLOURS

Although many readers will be familiar with terms such as Dunkelgelb and Schwartzgrau, an explanation of which colours were in use during the war and how their use was regulated by the Army's high command may be helpful.

General Army orders, or Allgemeine Heeresmitteilungen, were issued twice-monthly to all formations and establishments of the German Army down to company level and governed all aspects of army life. Disseminated by the Oberkommando des Heeres, or army high command, these orders announced important measures including changes to uniform regulations, the distribution of awards, innovations in training methods, allocation of replacements and even the discipline and morale of the troops (1).

These documents were considered to be restricted material unlike the Heeres-Verordnungsblatt which were issued to advise of less important, often mundane, changes. Throughout the war years several Allgemeine Heeresmitteilungen (HM) were published which stipulated the exact colours and methods by which vehicles, guns and buildings were to be painted. Until early 1943 the orders were accompanied by lists of approved commercial manufacturers from which stocks of paint could be acquired.

Industrial standards in Germany were regulated by the Reichs-Ausschuss fur Lieferbedingungen und Gütesicherung, an organisation set up in 1925 under the auspices of a number of major business concerns and government departments. An authority of the newly-formed republican government, its title can be

translated into English as the Commission for Delivery Terms and Quality Assurance and in everyday use was usually abbreviated to RAL. The commission was responsible for the establishment and oversight of manufacturing standards and by 1927 it had produced the RAL 840 colour system.

Originally consisting of just forty different hues, this system allowed exact matches of colour to be obtained merely by quoting a number, whereas previously it had been necessary to provide samples to a paint manufacturer who would then attempt to match the colour and shade. By 1941 the range of colours had grown to such an extent that the complete system was overhauled to give each colour a four-digit number (2). To differentiate it from the old standard this system was referred to as the RAL Farbtonregister 840-R. Between 1953 and 1961 the system underwent further changes and was renamed RAL 840-HR, superseding both the 1925 and 1941 standards (3).

Although RAL 840-HR retained certain numbers and names from the 1941 system, many now described colours which were significantly different to those used during the war. Importantly, two colours which feature prominently in this study, RAL 8020 Braun and RAL 7028 Dunkelgelb, were dropped completely. The exact shade of the latter, initially referred to as Dunkelgelb nach Muster, has been the source of endless debate with at least one account claiming, that this colour was produced in five different shades before May 1945.

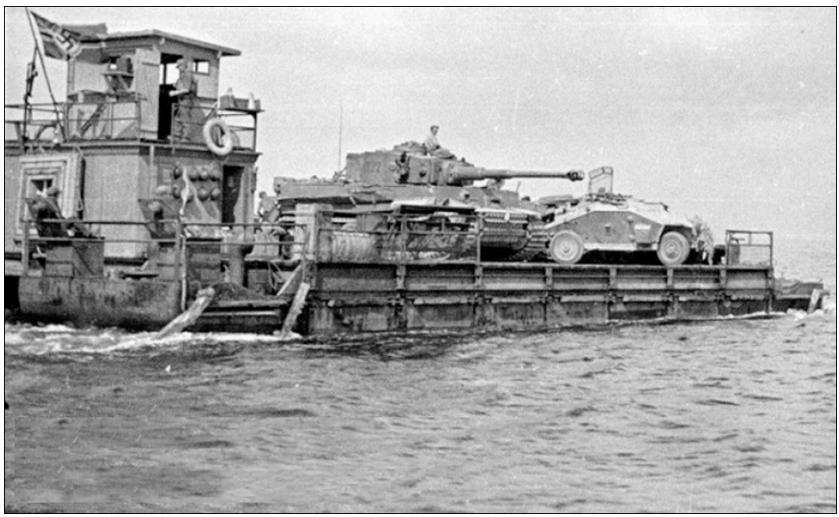
Notes

1. These orders were published on the 7th and 22nd day of each month and in addition to the OKH directives contained orders emanating from Hitler, the Oberkommando der Wehrmacht (OKW),

the General Staff, the Heerespersonalamt, the Heereszeugamt, the commander of the Ersatzheer, and the various inspectorates.

2. Today the first digit indicates the basic shade, for example the colours in the 7000 range were predominantly grey, but this was not always so during the war.

3. During the 1980s, RAL 841-GL saw the introduction of a number of gloss versions of the standard colours.



Photographed aboard a Siebel ferry in the Straits of Messina on 17 August 1943 this tank, number 222 of schwere Panzer-Abteilung 504, was the only Tiger evacuated from Sicily to the Italian mainland. Note the very dark shade of the tank compared to the SdKfz 222 armoured car. This tank is also shown and discussed on page 22 of the Camouflage and Markings section of this book.

From the introduction of the scheme in 1925 until the end of the

Second World War, the German Army, when ordering paint or stipulating a particular colour would, like any other government agency, refer to the RAL code.

During the early 1930s armoured vehicles and trucks were painted in multicoloured camouflage patterns which were reminiscent of those used during the 1914-1918 War and of which our knowledge is limited. Dated 12 July 1937, HM Nr.340 directed that vehicles were henceforth to be painted in a simple disruptive pattern of Dunkelbraun Nr.45 over a base coat of Dunkeigrau Nr.46 with the camouflage colour covering approximately one-third of the surface area (1). Importantly, the order clearly stipulated that the edges where the two colours met was to be feathered, unlike the previous method where hard edges were favoured. Although period photographs show that this aspect was sometimes ignored it did set a decisive precedent that was followed until the introduction of factory-applied camouflage schemes in late 1944. Issued on 2 November 1938, HM Nr. 687 confirmed the use of the two-colour camouflage and stressed that the cost of the paint was to be the responsibility of the ordering unit. A list of suppliers and their addresses was included.

It was not until 31 July 1940 that HM Nr.864 standardised the practice of using a single colour which was presumably Dunkeigrau Nr. 46, although this is only implied in the original document. Interestingly, the official order stresses that the adoption of a single colour camouflage was intended to save paint (2). The experience of the first units despatched to North Africa in early 1941 veiy quickly convinced the army that, as a camouflage colour, Dunkeigrau was totally unsuitable for the terrain in which the Panzers were expected to operate. On 17 March 1941, shortly after the arrival of Rommel's troops, HM Nr. 281 introduced a new scheme where the tanks were to be painted in a base coat of Gelbbraun RAL 8000, a medium yellow-brown, with a disruptive pattern in a grey-green shade known as Graugrün RAL 7008. It was intended that RAL 8000 be the predominant colour, covering approximately two-thirds of the surface area and the edges, where

the two colours met, were to be feathered. Contrary to some accounts, which suggest that the colour received its name at a later date, the order does indeed describe RAL 8000 as Gelbbraun. Interestingly, HM Nr.281 implies that the grey and brown camouflage of 1940 may still have been in use.

The North African commitment was a spur of the moment decision made by Hitler and forced upon the Wehrmacht at such short notice that no experimentation was conducted as to the suitability of these colours. Their main advantage was that both had been in use for some time by the Deutsche Reichsbahn and given the extensive railway network within Germany and the occupied countries, were probably in plentiful supply. The colours were to be obtained by the troops and an extensive list of commercial suppliers was included in the body of the order. That all these companies were located in Germany must have proven problematic for the supply officers of Panzer-Regiment 5, which was the first German unit to land in Libya, but within three weeks most tanks had received a coat of the new colours (3). The tanks of Panzer-Regiment 8, which arrived in Africa in late April and early May would certainly have been painted in the new camouflage colours or at least a base coat of RAL 8000.

Almost exactly a year later, on 25 March 1942, HM Nr.315 was issued which replaced the North African colours with two new colours, Braun RAL 8020 and Grau RAL 7027. They were to be applied in the same manner as described in the previous order and were only to be used after existing stocks of RAL 8000 and RAL 7008 had been exhausted (4).

Officially at least no change had been introduced for those units stationed in western Europe or fighting in the Soviet Union since HM Nr.864 of 31 July 1940, although it had been realised for some time that Dunkeigrau provided less than ideal camouflage on the open fields of Byelorussia and the Ukraine. There is abundant

evidence that operational units, particularly in southern Russia, had experimented with different camouflage schemes but is was not until 18 February 1943 that HM Nr. 181 instigated a complete break with the practice of using dark camouflage colours, ordering that all vehicles were now to leave the factories and assembly plants in a colour described simply as dark yellow, or Dunkelgelb nach Muster, as no RAL number had been allocated at the time the order was issued. The troops would be provided with two camouflage colours, initially RLM Olivgrun (5) and Rotbraun RAL 8017, in the form of a paste in either 2- or 20-kilogram tins which could be diluted with either water or petrol, the latter apparently giving the best result. This order also saw the end to the practice of units sourcing paint direct from the suppliers. This order affected all units of the army serving in Europe, North Africa and Crete. Although it is unlikely that any of the tanks fighting in Tunisia were repainted it is entirely possible that replacement vehicles arrived in the new scheme. As an amendment to the February order, HM Nr.322 dated 3 April 1943 stipulated that the base colour was to be Dunkelgelb RAL 7028 while the RLM colour was replaced by Olivgrun RAL 6033. This is the first time that these names and codes are mentioned in any official documentation and the significance of this is that Dunkelgelb was a completely new colour in February 1943 and its use prior to that date, as has been suggested in some accounts, is extremely unlikely if not impossible. Although the method of application and style of camouflage was left to the initiative of local commanders, the new order contained a table indicating the exact amount of paint required, by weight, to paint certain types and classes of vehicle or weapon. This almost certainly suggests that paint was in short supply or that in the past it had been used uneconomically, quite possibly both. This order remained in force until September 1944 when the practice of applying camouflage paint as part of the assembly process was instituted. However, as Tiger I production had ceased by then those colours and their application need not concern us.

Notes

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1. This was, of course, prior to the introduction of RAL 840-R. When the entire colour system was upgraded, Dunkelgrau Nr.46 was renamed Dunkelgrau RAL 7021 and although it is often referred to today as Schwartzgrau and Panzergrau, both are aimost certainly post-war inventions.

2. information pubilshed in the 1960s by the RAC Tank Museum incorrectiy transcribed the date of this order as 31 July 1939 and, to my knowiedge, no correction has ever been issued. This simple mistake has affected the study of these colours greatly, leading to the assumption that all German Army vehicles were painted in Dunkelgrau by the start of the French campaign.

3. The tanks of Panzer-Reglment 5 couid be identified by the patchy or worn appearance of the their camouflage well into 1942.

4. A list of nineteen colours available to army units which probably accompanied one of the official orders has survived the war although it is unfortunately undated. The inclusion of Braun RAL 8020 and Grau RAL 7027 would however suggest that the list was not compiled before March 1942.

5. The RLM, or Reich sluftfahrtministerium, the Ministry of Aviation, maintained its own colour system which was used by units of the Luftwaffe. It is not known why the Army found It necessary use a colour outside the RAL system which at this time contalned a number of green shades.

Tiger 131 of schwere Panzer-Abteilung 504 photographed shortly after its capture on 21 April 1943. Note the light area along the bottom and right hand edge of the turret stowage bin which may cover an earlier repair. The last two digits of the tank's number are just visible.

To illustrate the difficulty of discerning which colours were in use during the Tunisian battles some mention of Tiger 131 of schwere Panzer-Abteilung 504 captured by British Army units in April 1943 may be appropriate here. The tank's chassis number, or Fahrgestellnummer, indicates that it was assembled in February 1943 and it is thought to have arrived in North Africa at some time in March 1943. The tank was transported to Britain later in the year and today resides at the RAC Museum Bovington were it has been restored to running order. As part of the restoration process it was decided, after consultation with Hilary Doyle and the late Tom Jentz, that the Tiger would be repainted in RAL 8000 base coat with a disruptive pattern of RAL 7008 as required by the March 1941 orders. However, myself and other researchers are unconvinced that the choice of colour, and its application, are correct. Supporters of the RAL 8000 colour scheme point out that HM Nr.281 stipulated that existing stocks of RAL 8000 and RAL 7008 were to be

used before the new colours were employed, however, it is difficult to believe that a vehicle manufactured almost a full year after the introduction of HM Nr.315 could have been camouflaged in the old colours, although it is not impossible.

It should be remembered that HM Nr.315 clearly stated that stocks of paint were to be obtained by units directly from the suppliers and the presence of a dark grey or black paint discovered on some of the tank's enclosed surfaces during restoration would strongly suggest that this tank was not painted in a camouflage colour during the assembly process. The battalion began preparations for deployment to Africa from 17 February 1943 and ten days later the tanks left Fallingbostelfor Italy and arrived at Trapani from where 1.Kompanie was almost immediately shipped to Tunis. Within days of their arrival in North Africa the Tigers were sent to the front so it may be assumed that any re-painting took place before the battalion left Germany.

Tiger 131 was abandoned by its crew during a brief action on 21 April 1943 and over the next few days it was photographed from several angles. The tank was in reasonably good condition with a small amount of superficial damage, although in one photograph the forward roadwheel on the left hand side is missing. Areas of what appear to be a darker shade of paint can be discerned in some images and also large patches of a lighter colour, particularly on the turret stowage box, which may have covered repairs. To the best of our knowledge RAL 8020, the colour introduced by HM Nr.315, is a darker, somewhat duller shade of brown than RAL 8000 with the yellow tint of the latter. It is entirely possible that the tank was painted in the new colours and that a number of repairs undertaken in Africa were covered by RAL 8000 which was readily available. The tank was repainted at least once before a thorough restoration was commenced in the 1990s and we have no way of knowing how the original coat had been effected or to what shade it had worn. I feel that the illustration presented on page 19 and the artwork created by Ron Volstadfor Dragon Models and shown on page 41 are more accurate representations.

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PRODUCT CONTACT LIST AND ACKNOWLEDGMENTS

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www.italeri.com

Rye Field Models

www.ryefield-model.com

An almost non-existent website. I would

recommend one of the on-line retailers.

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Since writing this book Griffon have added a

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www.modelkasten.com

Very difficult to navigate but worthwhile.

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Zvezda (Zvezda-America)

www.zvezda-usa.com

Note that the Russian catalogue is not the

same as the US version.

ROCHM Model

www.rochmmodel.com

Rochmmodel@gmail.com

This company has a huge selection of parts

and accessories for 1/35 scale Tiger models

including sets to build specific vehicles.

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As with the first book in this series I have endeavoured to give the reader an understanding of a complex subject and provide the modeller with the inspiration to create a scale representation of what is arguably the most famous armoured vehicle to take to the battlefield. In researching this project I consulted a number of works but no book on the Tiger tanks could be written without reference to the Germany's Tiger Tanks volumes by the late Thomas L. Jentz and Hilary L. Doyle. I also drew on my own research for Fortress, German Armour in the Defence of Siciliy, To The Last Bullet, Germany's War on 3 Fronts, Part 2 Italy and The Panzers of Kasserine which I had the pleasure of working on with French author Claude Gillono. Another invaluable resource are Thomas Jentz's Panzertruppen books which I would recommend to any reader with an interest in German armour of the Second World War period. I would also recommend Tiger by Egon Kleine and Volkmar Kuhn although it is difficult to obtain and has only been published in German. In compiling the unit histories I drew heavily on the works of Oberst Wolfgang Schneider and to a lesser extent the books of Waldemar Trojca, Horst Scheibert, Jacek Solarz and Franz Kurowski. I should also acknowledge Hartmut von Holdt of Tiger im Focus for his many insightful observations, and the contributors to the Axis History and the Feldgrau forums, especially Martin Block and the late Ron Klages whose research on unit histories and vehicle allocations would fill many volumes. I would like to thank the modellers who very generously allowed me to publish the images of their work and particularly Bernard Cher, who brought many of them together. I am indebted to Rupert Harding and Stephen Chumbley at Pen &. Sword for their advice, assistance and above all patience. Of the product manufacturers I must make special mention of Roberto Reale of Royal Model, Sheng Hui of

ROCHM, Jan Zdiarsky from Eduard Accessories and Freddie Leung of Dragon Models who all helped enormously. As always, I am indebted to Karl Berne, Valeri Polokov and J.Howard Parker for their invaluable assistance with the photographs and period insignia.

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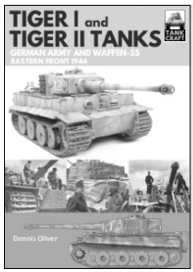

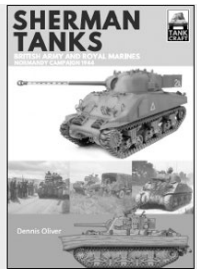

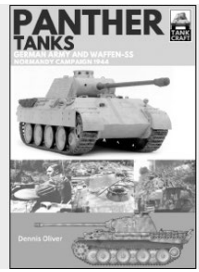

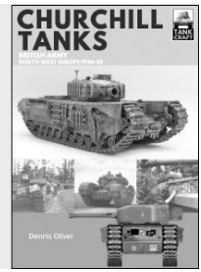

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The aim of this innovative new series is to provide modelmakers and tank enthusiasts with a new standard of primarily visual reference of both full-size tanks and their scale models. Each book

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Number 1 in the TankCraft series

TIGER I AND TIGER II TANKS

GERMAN ARMY AND WAFFEN SS EASTERN FRONT 1944

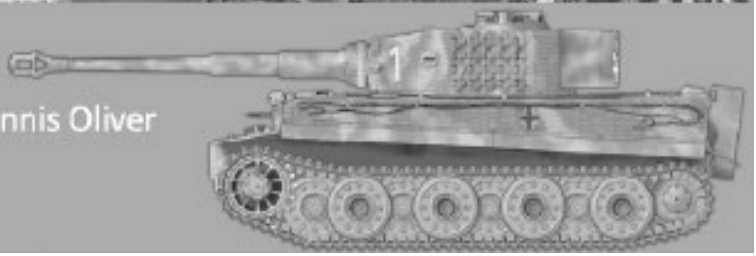
Dennis Oliver

In spite of the relatively small numbers produced, the Tiger I and Tiger II tanks are arguably the most famous armoured fighting vehicles of the Second World War. This book, the first in the TankCraft series, uses archive photos and extensively researched colour illustrations to examine the tanks and units of the German Army and Waffen-SS heavy Panzer formations that attempted to hold back the Red Army during 1944. In addition the book features a gallery of beautifully constructed and painted models and a showcase of available model kits and aftermarket products in various scales. Technical details as well as modifications introduced during production and in the field are also examined, providing everything the modeller needs to recreate an accurate representation of the tanks that fought from the snow-covered fields of Byelorussia and the Ukraine, through the Baltic States and into Poland and Hungary.

TIGER I and TIGER II TANKS

TANK CRAFT

GERMAN ARMY AND WAFFEN-SS EASTERN FRONT 1944



Dennis Oliver

Photographed near Beja, approximately 30 kilometres west of Medjez el Bab on the road to Bizerte in Tunisia, these wheels and tracks are all that remains of one of at least seven Tigers destroyed here by US Army engineers. Although the turret of Tiger 811 of schwere Panzer-Abteilung 501, which was at that time operating as the eighth company of Panzer-Regiment 7, was situated nearby, any attempt to identify the wreck shown here is speculative.